San Francisco Transportation Plan 2050

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San Francisco County Transportation Authority

SFTP 2050

ConnectSF

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Executive Summary

The San Francisco Transportation Plan (SFTP) is the blueprint for San Francisco's transportation system development and investment over the next 30 years. The SFTP covers all transportation modes, networks, and operators that serve the city and establishes long term investment priorities. The plan is updated every four years in coordination with Plan Bay Area 2050, the regional long-range plan. Through detailed analysis, the ConnectSF long-range planning effort, interagency collaboration, and listening to the public, the San Francisco County Transportation Authority (SFCTA) evaluated ways to improve the transportation system with existing and potential new revenues. The SFTP recommends a balanced Investment Plan that makes meaningful progress towards the ConnectSF vision and goals – equity, safety and livability, sustainability, economic vitality, and accountability and engagement. The SFTP also recommends a set of policy initiatives to support these goals and make the most of our investments.

SFTP AT A GLANCE

The SFTP includes:

- An Investment Plan to guide the allocation of $80 billion in existing and anticipated transportation revenues through 2050
- A Vision Plan to guide the allocation of an additional $15 billion potential new transportation revenues through 2050
- Policy initiatives to complement the Investment Plan and Vision Plan
- Guidance for implementation and monitoring

SFTP REVENUES

Through 2050, San Francisco can expect to have about $80 billion in funding available to support the transportation system; this funding makes up the Investment Plan. Most of these funds are already committed to specific projects or purposes. About $13 billion of the expected revenues are discretionary, meaning there is more flexibility in how they can be allocated.

WHY DOES THE SFTP MATTER?

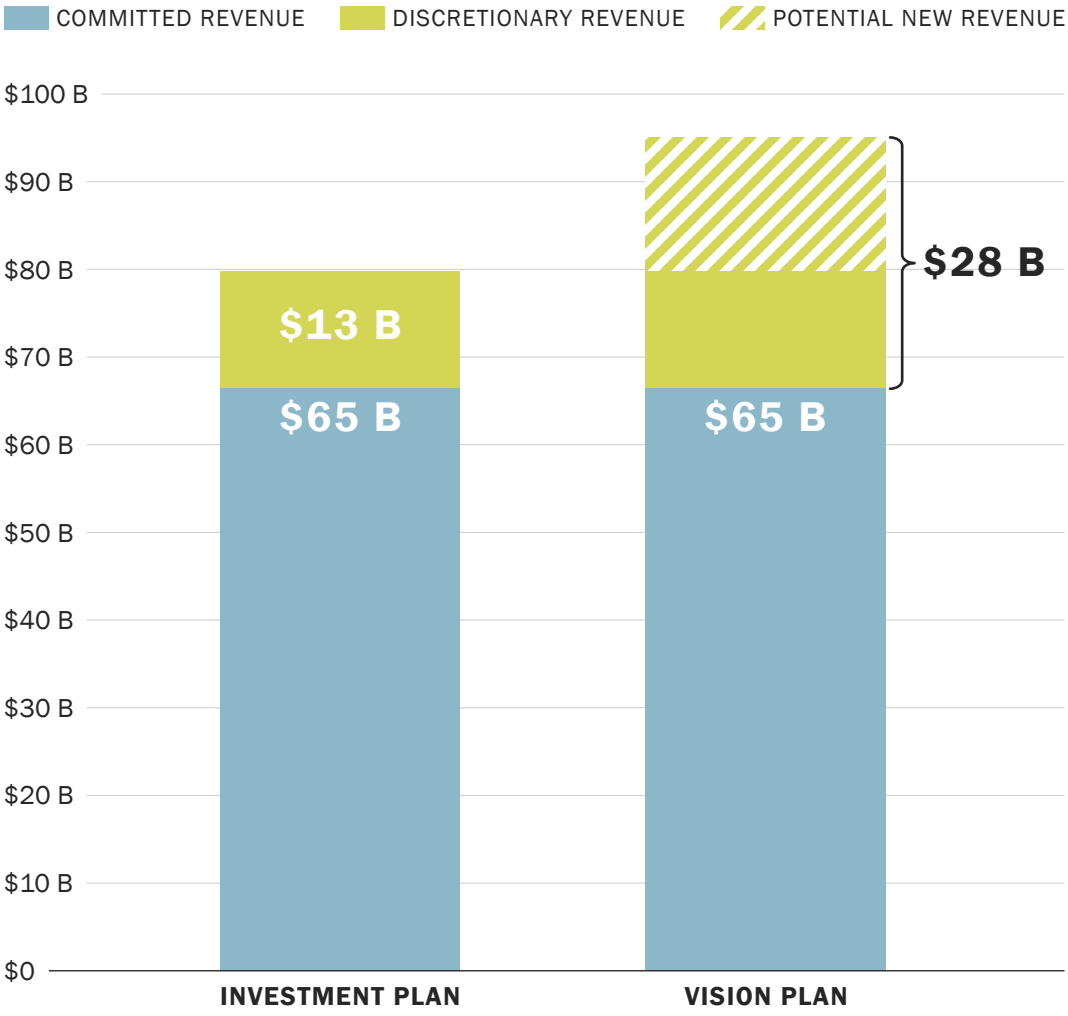
Like many counties in California, San Francisco is a "self-help" county where local revenues make up the majority of transportation funding (Figure 7). Local "matching" funding is often necessary to access federal, state, and regional funds to deliver the projects and services that are essential to meeting our goals.

The SFTP will make the city more competitive for transportation funding at the regional, state, and federal level, including for opportunities made possible by the Bipartisan, Federal Infrastructure Law that was enacted in 2021. Transportation projects seeking this funding must be consistent with the SFTP and the region's long-range transportation plan, Plan Bay Area 2050.

The SFTP also ensures that San Francisco's transportation investments and advocacy are well coordinated and effective in achieving citywide goals.

The 2022 Transportation Sales Tax Expenditure Plan[1] revenues – resulting from a 30-year continuation of San Francisco's existing half-cent transportation sales tax to 2053 – are included in the Investment Plan's discretionary revenues. The Vision Plan assumes additional revenues to help move the city closer to the long-term goals for San Francisco's transportation system. The Vision Plan totals about $95 billion dollars in revenues, which includes all the Investment Plan revenues plus an additional $15 billion in potential new revenues. In total, the Vision Plan includes $28 billion in discretionary revenues. Though the plan does not identify specific sources for this new revenue, sources may include, but are not limited to, local and regional measures, as well as increased federal and state funds. Figure 1 shows the SFTP revenue forecasts in the Investment Plan and Vision Plan.

Figure 1: SFTP 2050 Investment Plan and Vision Plan Revenues, in Billions of Dollars, 2020



1 https://www.sfcta.org/ExpenditurePlan

SFTP INVESTMENT PLAN AND VISION PLAN SUMMARY

The Investment Plan and Vision Plan are organized into six primary categories, consistent with the 2022 Transportation Sales Tax Expenditure Plan approved by San Francisco voters in November 2022, plus the addition of a Transit Operations category. Table 1 shows categories of major investments and funding levels recommended by both the Investment Plan and Vision Plan.

Table 1: Investment Levels by Category, in Billions of Dollars, 2020

CATEGORY	INVESTMENT PLAN	VISION PLAN
Major Transit Projects Includes transit reliability, speed, and capacity capital improvements to support local and regional operators providing more frequent bus and rail service, running longer trains, and extending Caltrain in San Francisco.	$10.37	$10.37
Transit Maintenance and Enhancements Includes transit maintenance, rehabilitation, and replacement of local and regional transit infrastructure serving San Francisco, and enhancements such as stop/station access improvements, new stations, and planning for the next generation of transit projects.	$10.88	$15.86
Paratransit Includes door-to-door van, taxi, and other transportation services for seniors and people with disabilities who are unable to use fixed route transit service.	$1.27	$1.27
Streets and Freeways Includes pedestrian and bicycle safety and traffic calming, maintenance, rehabilitation, and replacement of road infrastructure, streetscape improvements, and freeway safety and operational improvements.	$5.38	$7.23
Transportation System Development and Management Includes neighborhood and equity planning to create a pipeline of projects across the city, and Transportation Demand Management strategies — cost-effective projects that support shifting when, how, and where people travel.	$4.00	$4.00
Transit Operations Includes transit operations for Muni and San Francisco's share of regional transit services, except for Muni paratransit operations which is shown in a separate category.	$46.47	$52.93
Existing Obligations Remaining balances on Prop K grants and debt service.	$0.55	$0.55
TOTAL	**$78.92**	**$92.21**

ACCOMPLISHMENTS SINCE SFTP 2040

The 2013 SFTP (SFTP 2040) outlined specific recommendations and priorities to improve the transportation system[1]. System monitoring is part of the long-range planning cycle. San Francisco accomplished and advanced many of the recommendations in the past decade, though many remain relevant as we plan for the next 30 years. SFTP 2040 policy recommendations and an overview of accomplishments and current progress are listed in Table 2.

Table 2: Summary of SFTP 2040 Accomplishments

SFTP 2040 POLICY RECOMMENDATIONS	ACCOMPLISHMENTS AND PROGRESS
Prioritize revenues to fully fund timely transit vehicle replacement and rehabilitation	The city made a major investment in transit to buy and fully replace Muni buses, light rail, and paratransit vehicles, help rehabilitate existing Caltrain diesel vehicles, and purchase the new Caltrain electric fleet.
Expand transit service while supporting steps to stabilize costs	Prior to the COVID-19 pandemic (pandemic), there was a Muni service expansion of at least 12%. Unfortunately, those gains were eroded by the pandemic. SFTP 2050 is the first time the Investment Plan will not be able to meet transit operating needs. Decreased ridership and the associated loss of fare revenue (caused by the pandemic and persistent today), along with increases in operating costs that exceed the growth in revenues, have created unprecedented financial deficits for all transit operators in the region. See page 20 and page 37 for a discussion of the fiscal cliff transit operators are facing.
Achieve city goals for average pavement condition	In 2020, the city achieved pavement quality goals (Pavement Condition Index 75/100)[2] through coordinated investment from San Francisco's General Fund, the Prop K half-cent transportation sales tax, Prop AA Vehicle Registration Fee[3], the 2011 Road Repaving and Street Safety Bond, and Senate Bill 1.[4]
Build the pedestrian and bicycle strategies to establish safer neighborhood networks citywide	The separated bikeway network increased by 34 miles and there was rapid growth in the active transportation network, particularly during the pandemic.
Create more complete streets (at lower cost) through coordination with repaving	The city adopted Vision Zero in 2014. The SFCTA established the Vision Zero Committee which met quarterly from 2014 to 2020, after which point regular Vision Zero updates have been presented to the full SFCTA board. The city has implemented quick-build projects on the on the High Injury Network[5] that allowed for quick and innovative improvements to our streets. About 31 miles (19%) of improvement are complete, 22 miles (13%) under construction, and 29 miles (17%) are in design.

1 https://www.sfcta.org/projects/san-francisco-transportation-plan#panel-reports-documents

2 https://www.sfcta.org/blogs/milestone-smoother-streets-san-francisco

3 https://www.sfcta.org/funding/prop-aa-vehicle-registration-fee

4 https://dot.ca.gov/programs/sb1

5 https://www.visionzerosf.org/maps-data/

SFTP 2040 POLICY RECOMMENDATIONS	ACCOMPLISHMENTS AND PROGRESS
Increase investment in employer, school, and community trip reduction programs	The San Francisco Department of Environment, San Francisco Planning Department, SFCTA, and San Francisco Municipal Transportation Agency (SFMTA) jointly developed the 2017 – 2020 Citywide Transportation Demand Management (TDM) strategy[1], but many recommendations still need to be implemented. To encourage transit ridership, BART piloted the BART Perks[2] program and BART, the SFMTA, and Samtrans launched the Gator Pass[3] to provide free or reduced fares to San Francisco State University students. The Metropolitan Transportation Commission, in partnership with Bay Area transit agencies, launched the Bay Pass[4] pilot program, which will provide free transit access to about 50,000 Bay Area residents.
Increase transparency and promote public involvement by sharing agency prioritization and development processes	The ConnectSF process brought together the SFCTA, the SFMTA, San Francisco Planning Department, and the Office of Workforce Development to jointly form a long-range transportation planning effort, rooted in community engagement. The SFCTA also developed the Neighborhood Program[5] for community transportation planning in response to mobility and equity findings from the SFTP 2040, which found that walking, biking, and transit reliability initiatives are important ways to address socio-economic and geographic disparities. The SFCTA continued to invest in Community Based Transportation Plans and implement their recommendations in Equity Priority Communities. MyStreetSF, an online tool, was created for community members to track transportation projects funded by the SFCTA.[6]
Continue to develop pricing approaches to congestion management	The city developed and implemented SFPark to improve parking availability, the SFCTA began developing an equity-first congestion pricing strategy,[7] and the Planning Department established developer TDM programs[8] to reduce new driving trips associated with new development. The Treasure Island Mobility Management Agency (TIMMA) is implementing a comprehensive multimodal TDM program to support growth on Treasure Island.[9]
Continue rapid transit network development, including bus rapid transit	The city installed nearly 80 miles of transit upgrades since 2014 through the Muni Forward program, implementing a range of elements from the Transit Preferential Streets toolkit. The city now has approximately 70 miles of dedicated transit lanes, along with many other elements to improve reliability such as signal priority, stop rebalancing, and more. Recently, the city completed the Van Ness Bus Rapid Transit and Geary Rapid Phase 1 Projects and installed transit signal priority on the entire Muni bus rapid network. The Muni Service Equity Strategy[10] focuses on improving transit performance in San Francisco neighborhoods with high percentages of households with low incomes and people of color. This strategy is an ongoing effort to improve service performance in eight Equity Strategy neighborhoods, with annual monitoring.

1 https://sfplanning.org/transportation-demand-management-program
2 https://www.BART.gov/guide/perks
3 https://bursar.sfsu.edu/students/campus-fees/gator-pass
4 https://mtc.ca.gov/news/clipperr-baypass-sets-sail-unlimited-transit-access
5 https://www.sfcta.org/policies/neighborhood-program
6 https://mystreetsf.sfcta.org
7 https://www.sfcta.org/downtown
8 https://sfplanning.org/transportation-demand-management-program
9 https://www.sfcta.org/projects/treasure-island-transportation-program
10 https://www.sfmta.com/projects/muni-service-equity-strategy

SFTP 2040 POLICY RECOMMENDATIONS	ACCOMPLISHMENTS AND PROGRESS
Continue to coordinate transit investment with land use development plans	The city adopted the Transportation Sustainability Program[1] to ensure new growth contributes to improving and expanding the transportation system. The regional One Bay Area Grant (OBAG) program, administered in San Francisco by the SFCTA, directs transportation funding to the city's adopted Priority Development Areas.[2] The SFCTA continues to support the Caltrain Downtown Extension (DTX) and the redevelopment of Treasure Island,[3] the area around Balboa Park Station, and the redevelopment of Treasure Island, as well as numerous development sites citywide.
Set a vision for managing the city's freeway network	The SFCTA completed the Freeway Corridor Management Study in 2017 and began follow-on work to analyze managed lanes and express bus on US-101/I-280 and coordinate regional express lane strategic planning.[4,5] The SFCTA also completed the SoMa Vision Zero Freeway Ramp Safety Study. The ConnectSF Streets and Freeway Strategy identified priorities for addressing key challenges within the freeway network and is an input to SFTP 2050.[6]
Identify the next generation transit network priorities for BART, Caltrain, and Muni	Through ConnectSF, the Transit Strategy provides a vision for regional and local bus, rail, and ferry and is an input into SFTP 2050.[7] Caltrain developed the Caltrain Business Plan to define how the Caltrain service and corridor should grow and change in the future.[8]
Consider all options for delivering projects	Caltrans, in partnership with the SFCTA, successfully delivered Presidio Parkway as a Public Private Partnership. The TJPA, in collaboration with funding partners, is exploring delivery options for the Caltrain Downtown Extension (DTX) by modeling best practices for governance. The SFMTA is pursuing a joint development method for Potrero Yard and the SFCTA is delivering the Westside Bridges using the Construction Manager/General Contractor process to adapt early construction related learnings. There have also been challenges with project delivery (e.g., Van Ness Improvement Project and Central Subway), resulting in significant delays and cost increases. City agencies are incorporating lessons learned on 19th Avenue and Taraval Improvement projects. The SFCTA is leading an effort to recommend project delivery best practices for major capital projects, in coordination with other city agencies.

1 https://sfplanning.org/transportation-sustainability-program
2 https://www.sfcta.org/funding/one-bay-area-grant-program
3 https://www.sfcta.org/projects/treasure-island-transportation-program
4 https://www.sfcta.org/sites/default/files/2019-03/FMCS_PH2_Report_FINAL_1.pdf
5 https://www.sfcta.org/projects/101280-express-lanes-and-bus-project
6 https://connectsf.org/wp-content/uploads/FINAL_SFS_Report.pdf
7 https://connectsf.org/transit-strategy/
8 https://caltrain2040.org/

In addition to making progress in the policy recommendations, new needs arose in the areas of emerging mobility and climate since the last major SFTP update in 2013. The city was able to fund additional efforts to advance:

- **Emerging mobility and technology:** San Francisco worked to understand the impacts of Transportation Network Companies (TNCs) such as Uber and Lyft, which provide ridehail service, on the transportation system through a series of analysis and reports including TNCs Today,[1] TNCs & Congestion,[2] TNCs & Land Use,[3] and TNCs & Disabled Access.[4] Proposition D,[5] a voter approved ordinance that collects a tax on fares charged to rides provided by TNCs, autonomous vehicles (AVs), and private transit services passed in 2019. The SFCTA and the SFMTA also adopted 10 guiding principles[6] for new mobility in San Francisco and is actively advocating at the state and federal level to ensure autonomous vehicles support long term transportation goals.
- **Climate:** San Francisco updated its 2021 Climate Action Plan, which is a roadmap for meeting the City's emissions reduction goal to have net-zero emissions by 2040.[7] The Climate Action Plan lays out a path to meet this goal with interventions in five sectors: energy supply, building operations, transportation, housing, responsible production and consumption, and healthy ecosystems. The Department of Environment, the SFCTA, the SFMTA, and the San Francisco Planning Department collaborated to develop the transportation strategies and actions. The SFCTA provided analytical support to forecast the effectiveness of the transportation strategies and the San Francisco Department of Environment and the SFMTA are leading implementation.

1 https://www.sfcta.org/projects/tncs-today

2 https://www.sfcta.org/projects/tncs-and-congestion

3 https://sfplanning.org/sites/default/files/documents/citywide/TNCs-land-use/TNC_Land_Use_Study_2022.pdf

4 https://www.sfmta.com/sites/default/files/reports-and-documents/2019/05/tnc_and_disable_access_whit_paper-rev11_2.pdf

5 https://www.sfcta.org/funding/tnc-tax

6 https://www.sfcta.org/policies/emerging-mobility#panel-guiding-principles

7 https://sfenvironment.org/climateplan#The%20Plan

SFTP 2050 Plan Development

REGIONAL TRANSPORTATION PLAN ALIGNMENT

Plan Bay Area (PBA 2050) is the long-range transportation plan and the Sustainable Communities Strategy for the San Francisco Bay Area.[1] PBA 2050 demonstrates how the transportation network and land use development can work together to reduce greenhouse gas emissions and create more complete, livable, and sustainable communities with sufficient affordable housing, more transportation choices, and easier access to vital services and amenities. The SFCTA coordinates San Francisco's input to PBA 2050, including the list of specific transportation projects and programs to be included in the PBA 2050's transportation investment strategy. Inclusion of projects and programs in PBA 2050 is a prerequisite for receiving some state and federal transportation grants, as well as a requirement for securing a project's federal environmental document approval.

The SFCTA works closely with the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG), which lead the regional process, to ensure consistency between PBA 2050 and the SFTP. Because SFTP 2050 follows regional guidelines, the draft Investment Plan and its project priorities served as San Francisco's primary input into the PBA 2050 update, adopted in October 2021.

Through PBA 2050, the SFCTA and partners advocated for inclusion of critical regional and local priorities such as the Muni and BART Core Capacity projects, local safety and transit reliability improvements, and the Downtown Extension.

EMERGING FROM CONNECTSF

ConnectSF is San Francisco's multi-agency long range transportation planning effort to help build an effective, equitable, and sustainable city. There are three phases in ConnectSF to establish a long-term transportation vision, understand needs, and plan to support future implementation. The three phases of ConnectSF are shown in Figure 2 below. SFTP 2050 is part of Phase 3:

1 https://www.planbayarea.org

Figure 2: ConnectSF Phases of Work

- Phase 1 began by asking, as a city, where have we been, where are we now, and where do we want to go. A vision for San Francisco emerged through extensive community engagement that was guided by five goals: equity; economic vitality; environmental sustainability; safety and livability; and accountability and engagement. The ConnectSF Vision has been used to guide the subsequent phases.
- Phase 2 developed a Statement of Needs, which described San Francisco's pre-pandemic conditions and future needs that would arise without transportation investments. Phase 2 also included the Transit Strategy and Streets and Freeways Strategy, which offer strategic direction for the future transit system and major streets and freeways within San Francisco.
- Phase 3 includes plans that support future implementation of transportation investments – the SFTP defines investment priorities, and the Transportation Element of the General plan codifies transportation policies.

CONNECTSF VISION

The vision that emerged from Phase 1 of ConnectSF was one of a growing, diverse, and equitable city. Participants in the outreach process envisioned a transportation system with many reliable ways to get around that are available and affordable to all. This multi-faceted transportation system would be planned and built in a timely manner – a result of strong civic and government engagement.

As part of ConnectSF, the SFTP and builds on previous efforts and uses the ConnectSF goals, shown in Figure 3 below.

Figure 3: ConnectSF and SFTP Goals

EQUITY
San Francisco is an inclusive, diverse, and equitable city that offers high-quality, affordable access to desired goods, services, activities, and destinations.

ECONOMIC VITALITY
To support a thriving economy, people and businesses easily access key destinations for jobs and commerce in established and growing neighborhoods both within San Francisco and the region.

ENVIRONMENTAL SUSTAINABILITY
The transportation and land use system support a healthy, resilient environment and sustainable choices for future generations.

SAFETY AND LIVABILITY
People have attractive and safe travel options that improve public health, support livable neighborhoods, and address the needs of all users.

ACCOUNTABILITY AND ENGAGEMENT
San Francisco agencies, the broader community, and elected officials work together to understand the City's transportation needs and deliver projects, programs, and services in a clear, concise, and timely fashion.

PUBLIC OUTREACH

ConnectSF was informed by a robust, continuous outreach process that included focus groups, online surveys, and targeted outreach to community-based organizations. The SFTP brought together the community outreach findings and feedback collected throughout ConnectSF and sought additional community priorities through a multilingual online survey, meetings with community based organizations, and townhall events. The SFTP survey and events were promoted through partnerships with community based organizations. The project team spoke with groups across the city, prioritizing community groups in Equity Priority Communities. In total, there were over 500 survey responses and 15 community meetings. See Appendix E for additional information. The 2022 Transportation Sales Tax Expenditure Plan outreach process also supported the development of the SFTP 2050.[1] This process particularly focused on low-income communities, communities of color, and monolingual communities across the city, to help advance the project's equity goals.

1 https://www.sfcta.org/sites/default/files/2022-02/Enclosure%201_Reauthorization_Outreach_Summary.pdf

Through the public outreach process, the project team heard investment themes that were used to guide the prioritization of discretionary revenues and policy themes to guide the identification/development of policy initiatives.

Investment Themes Include:

- Transit investments are important to expand service to pre-pandemic levels and improve reliability
- Street safety is important across the city to reduce conflicts and collisions that harm the most vulnerable road users
- There is a need to start considering the next generation of transportation projects, including new major rail and freeway transformations, to plan for and accommodate future growth in San Francisco, close equity gaps, and repair past harms

Policy Themes Include:

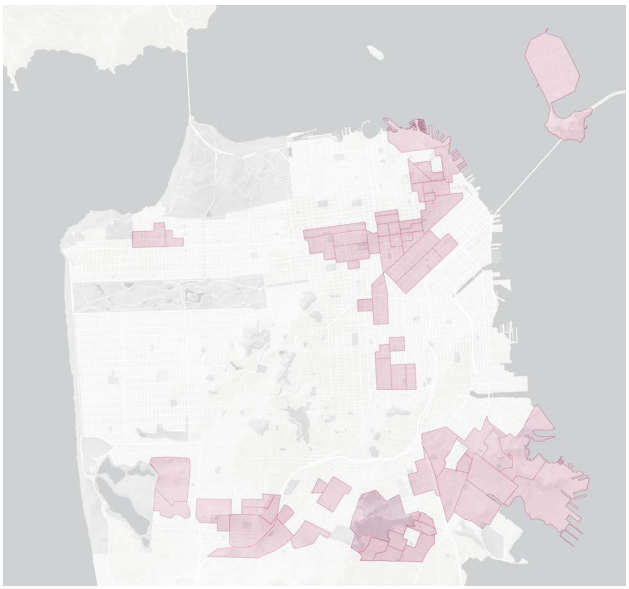
- The need to improve personal security by addressing actual and perceived safety risks on city streets and on transit to promote a greater sense of safety on all modes of travel
- Equity and affordability are important across all modes to reduce barriers and increase access for low-income and vulnerable residents
- The need to improve project delivery and accountability and to create a more transparent planning process
- The need to create a more integrated regional transit system to make trips easier and more reliable

TRANSPORTATION CHALLENGES

The ConnectSF Streets and Freeways Strategy and the Transit Strategy documented San Francisco's needs and identified solutions to overcome challenges and advance ConnectSF goals. The SFTP brings together these two strategies and prioritizes funding for projects and programs which address San Francisco's most pressing challenges, outlined below.

The SFTP also recognizes that transportation needs can vary between neighborhoods.[1] San Francisco uses a designation called Equity Priority Communities for neighborhoods with high levels of households that could be considered disadvantaged or vulnerable (Figure 4). The SFTP considers outcomes for these neighborhoods alongside citywide outcomes.

Figure 4: San Francisco Equity Priority Communities



EQUITY PRIORITY COMMUNITIES

The Metropolitan Transportation Commission (MTC), the Bay Area's regional transportation planning agency, has designated a set of census tracts as Equity Priority Communities (EPCs). EPCs include census tracts that either have both a concentration of people of color and low-income households or have a concentration of low-income households and three of the remaining six factors – people of color, low incomes, limited English proficiency, zero-vehicle households, seniors 75 years and older, people with disabilities, single parent families, or cost burdened renters.

In San Francisco, vulnerable communities are often located in the same census tracts with more affluent neighborhoods. Because of this proximity, the SFCTA conducts an analysis similar to the MTC's at a more fine-grained level to capture San Francisco's EPCs more accurately, shown in Figure 4.

1 https://www.sfcta.org/sites/default/files/2021-09/SFCTA_Equity-Assessment-for-New-Sales-Tax-Expenditure-Plan_2021-09-17_FINAL.pdf

Infrastructure Maintenance and Rehabilitation

Keeping the existing transportation system in a state of good repair is essential to providing safe and reliable transportation options for residents, workers, and visitors in San Francisco and the region. The SFMTA has a state of good repair backlog that requires replacing obsolete equipment and strengthening critical infrastructure and facilities to handle the increased demands of San Francisco's continued growth. Prior SFTPs and the SFMTA's 2020 State of Good Repair Report[1] highlight the important need to address a backlog in vehicle, facilities, and guideways maintenance. Keeping the transit system in a state of good repair is essential to support safe and reliable transit service. Deferred maintenance not only decreases service reliability but increases maintenance costs to keep old assets functional. Regional transit operators serving San Francisco such as BART and Caltrain also lack the budget to replace, repair, and rehabilitate assets in a timely fashion. This has led to a significant backlog in necessary repairs and leads to increased frequencies of breakdowns, including elevators, faregates, and tracks, resulting in less reliable transit service.

San Francisco recently achieved a city goal by raising the average pavement condition of city roads. Newly repaired and resurfaced pavement benefits all road users from bicyclists to motorists to bus riders. In addition, maintaining roads in a timely fashion, before they fall into poor condition, is less costly. Ongoing investment is needed to maintain this good pavement status and to ensure other roadway infrastructure such as signs, signals, sidewalks, and bicycle facilities are maintained. Climate and earthquake resilience continue to present significant needs and planning is underway to identify and prioritize these.

Transit Service and Reliability

Transit service levels and ridership demand declined dramatically at the beginning of the pandemic. The ridership demand that remained was overwhelmingly travelers reliant on transit for basic mobility, not the traditional downtown-centric commute, underscoring the lifeline role that transit plays for these populations. Although regional rail service has been restored to near pre-pandemic level and some Muni bus routes have fully recovered or exceeded their pre-pandemic ridership, especially during weekend/off-peak periods, overall ridership demand remains significantly below 2019 levels despite substantial restoration of most service hours. The pandemic also caused a steep drop in revenue associated with reduced ridership. BART, Caltrain, and the SFMTA all suffered significant losses in fare revenues and parking fees. In addition, for the SFMTA, the steep drop in daily commuters and visitors, as well as tourists, led to significant declines in other revenue sources from parking garage revenues to General Fund support. During fiscal years 2021 and 2022, this drop in revenues was mitigated by federal COVID relief funds. When federal relief funds are exhausted in 2025, the SFMTA risks entering a continuous cycle of service

1 https://www.sfmta.com/sites/default/files/reports-and-documents/2021/07/7-20-21_mtab_item_17_state_of_good_repair_-_report.pdf

cuts, reduced ridership, and further reductions in revenues that lead to more cuts, unless additional funding sources are secured. Regional transit systems such as BART and Caltrain face similar challenges. The situation is such that the MTC, the nine-county Bay Area's federally designated metropolitan planning organization, has identified finding solutions to avert the transit fiscal cliff a top priority for its state and federal legislative advocacy in the upcoming legislative session.

Even prior to the pandemic, the SFMTA had a growing structural budget deficit. Transit fares and parking revenues declined as a share of the overall budget, from 58% in 2013 to 47% in 2018. During this period, deficits were filled by one-time sources as escalating costs outpaced revenues. Solving this structural problem and expanding transit service will be critical to sustaining essential transportation services, reducing transit crowding, and serving communities reliant on transit.

Safety

In 2014, San Francisco adopted a Vision Zero policy and set the goal of eliminating traffic deaths by 2024. Currently, Vision Zero includes education programs, street improvements, focused enforcement of the most significant causes of traffic fatalities, and ongoing evaluation. While the framework is robust, more progress is needed to meet this goal: In 2021, there were 27 traffic-related deaths in San Francisco ; so far, in 2022 there have been 30 traffic-related deaths. The Vision Zero Task Force and the SFMTA's Vision Zero Action Strategy focus on multiple efforts from reducing speeds and re-designing streets to pursuing automated enforcement. The recent passage of Prop L provides important funding for Safe Routes to School programs and investment in safe and complete streets.

Inefficient Use of Limited Street Space

Street space in San Francisco is limited and, in the future, streets need to move more people and goods through the same space there is today. About 45% of all trips to, from, and within San Francisco are made by driving, and roughly half of these are drive alone trips. The city needs to manage this valuable public resource to make the most sustainable and space-efficient modes more effective, and to maximize accessibility for all.

Climate and Emissions

The world is in a climate crisis and transportation comprises 46% of GHG emissions in San Francisco. San Francisco's climate goals include achieving net zero emissions by 2040. Private transportation makes up almost half of the city's greenhouse gas emissions, most coming from cars and trucks.[1] To meet these goals, transit, walking, biking, and carpooling need to be more convenient for more people. This is especially true for local trips. Currently, more than 40% of car trips in San Francisco are three miles or

1 https://sfenvironment.org/climateplan

less. Improvements to transit reliability and street safety can help people chose transit, walking, and biking more often. While the SFMTA has one of the greenest transit fleets, doing its part to switch to zero emission buses involves significant costs with procurement of new vehicles and the retrofit and construction of maintenance facilities for the new fleet. The city is also preparing for e-bike adoption and private vehicle fleet transitions by planning for secure bike parking and Electric Vehicle charging facilities citywide.

ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

Transportation is San Francisco's biggest source of greenhouse gas emissions, at 46%. San Francisco's Climate Action Plan sets a target to achieve net-zero emissions citywide by 2040 and highlights the need for significant investments throughout our transportation and land use efforts to reach the climate goals. It also sets a goal to have 25% of all registered vehicles be electric vehicles (EVs) by 2030 and 100% by 2040. At the state level, California's Advanced Clean Cars II rule sets a path for 100% of new cars and trucks sold in California to be electric vehicles by 2035.

The City needs to advance local policies and investments to make this possible, while at the same time working to shift as much travel as possible to transit, walking, and biking. To support the transition to EVs for those who need to drive, the city needs more infrastructure to ensure the widespread availability of electric charging and establish programs and policies to improve affordability of owning and maintaining these vehicles in place of internal combustion engine vehicles. In a dense urban environment where many residents live in multi-unit buildings, one challenge is that a significant share of drivers do not have off-street parking and will require charging opportunities elsewhere. The cost of this infrastructure is beyond the funding ability of local revenue sources. The city needs to encourage private investment while at the same time seeking regional, state, and federal funding opportunities to expand EV charging infrastructure.

Electric bikes (e-bikes) are important to help shift trips from driving and have the potential to enable new types of trips, compared to standard bicycles. However, there are similar challenges for e-bike adoption as EV adoption – parking in residential buildings, access to charging, and affordability.

In recognition of the benefits of e-bikes, jurisdictions across the country, including Contra Costa and San Mateo Counties, have introduced e-bike purchase incentive programs and the California Air Resources Board is also developing a $10 million e-bike subsidy program at the state level.[1]

1 https://ww2.arb.ca.gov/news/nonprofit-administrator-selected-implement-new-statewide-income-based-electric-bicycle

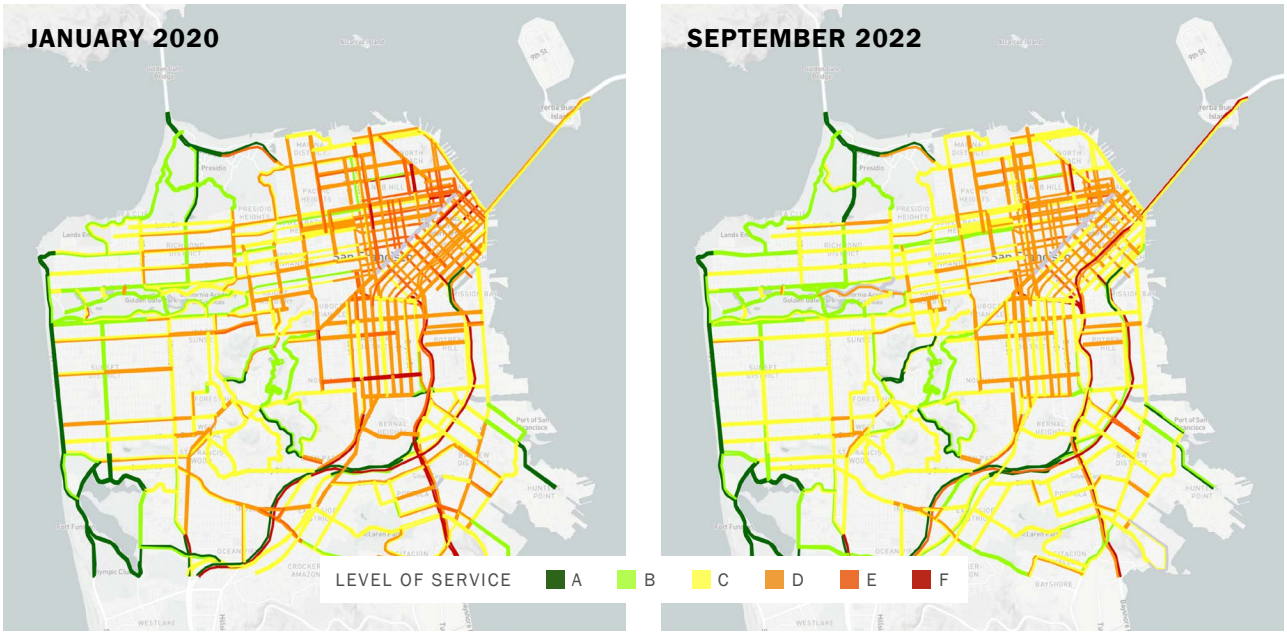
Repairing Harms and Reconnecting Communities

Past investments in San Francisco's freeways and major roads have displaced communities and divided neighborhoods, many of which are historically low-income and communities of color. These freeways and roads are now significant paths of travel but remain transportation barriers in the neighborhoods where they are located, contribute to poor air quality, and create safety challenges, especially for people walking and biking. As efforts advance to redesign our streets, the city needs to work with communities to repair the harms created by past investments through concepts that combine transportation and land use opportunities. Repairing past harms will require extensive community engagement to identify and shape transformative projects across the city.

The COVID-19 Pandemic

The SFTP 2050 was developed during unprecedented times when travel behaviors, San Francisco's transit network, and the transportation funding ecosystem all changed because of the pandemic. Congestion precipitously dropped early in the pandemic but has gradually returned and now rivals 2019 levels in some areas. The congestion patterns are different than before the pandemic began (see Figure 5). For example, in the AM peak period, freeway speeds have declined since shelter-in-place orders but remain above pre-pandemic speeds. However, this is not true everywhere. The Bay Bridge, I-80, Central Freeway, and northbound US-101 are more congested than they were before the pandemic in both the AM and PM periods. In the PM peak period, freeway congestion has returned to pre-pandemic levels, and the Bay Bridge, I-80, and parts of northbound US-101 are more congested. Arterial speeds remain slightly higher than pre-pandemic levels.

Figure 5: San Francisco Congestion Pre-pandemic and 2022

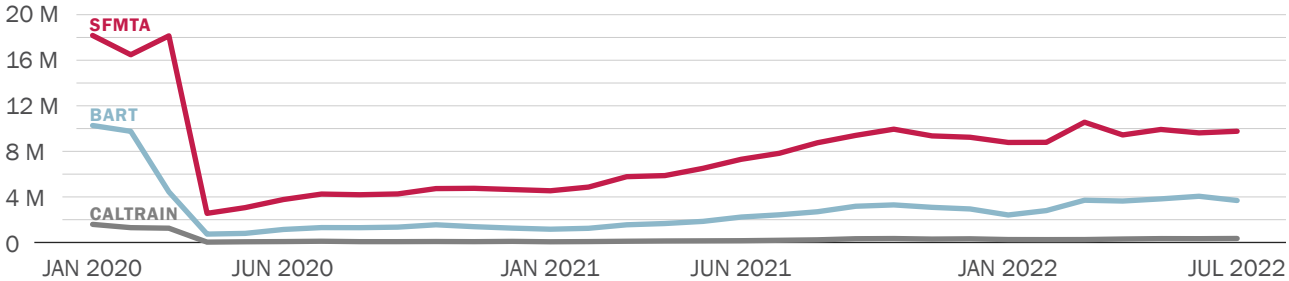


Source: COVID congestion tracker, (AM Peak Auto Level-of-Service)

In early 2020, transit ridership across the region dropped drastically because of the pandemic, and transit service was reduced. Muni carries more low-income riders than all area operators combined.[1] As San Francisco began to gradually reopen from shelter-in-place orders, the SFMTA Muni service was increased with a focus on serving communities most dependent on transit and essential workers and ridership began to gradually rise. Though federal COVID-relief funding helped avoid mass layoffs and worse service cuts, staffing shortages and structural budget deficits have kept transit service from being restored to pre-pandemic levels. By September 2022, Muni ridership reached about 57% of pre-pandemic ridership, with some lines exceeding 2019 levels. During this same time, San Francisco was able to make quick progress on transit priority projects to improve speed and reliability along critical bus routes while expanding the active transportation network to create space for people to safely walk and bike.

Regional rail operators (BART and Caltrain) also reduced service early in the pandemic to match employee availability and passenger demand. These regional railways have high fixed costs. Reduced service led to somewhat reduced operational expenses, but not enough to offset the agencies' lost fare and parking revenues. Federal COVID-relief funds helped sustain regional transit service and avoid layoffs. As the region began to reopen, BART and Caltrain restored service on these systems close to pre-pandemic levels to attract back ridership. Ridership levels have increased, but remain far below pre-pandemic levels. BART is an essential service for regional trips and, during the pandemic, the demographics of riders changed including an increase riders who do not own a vehicle, identify as non-white, and have annual household incomes under $50,000.[2] By September 2022, BART weekend ridership ranged from 60 – 70% of pre-pandemic projections, while weekday ridership reached 38%. By July 2022, Caltrain monthly ridership reached about 25% of pre-pandemic ridership (see Figure 6). Both agencies, like the SFMTA, are facing fiscal cliffs with respect to operations funding, when the federal relief funds run out as soon as 2025. The fiscal cliff means that all three operators will not have sufficient operating funds to continue providing current service levels, and will need to make service cuts unless new funding is identified after federal relief funds run out.

Figure 6: Monthly Passenger Boardings, January 2020 through July 2022



Source: https://mtc.legistar.com/View.ashx?M=F&ID=11347247&GUID=B7212F8D-6BDA-419E-B27D-D9ADE63CF2B2 (page 2)

1 https://transit-riders.sfcta.org

2 https://www.bart.gov/sites/default/files/docs/BARTFacts2021_2.pdf

The SFTP recommendations were developed during this time of dramatic change. As the pandemic and transportation funding circumstances continue to evolve, the plans and recommendations developed in the SFTP 2050 will guide investments to support equitable recovery and advance the city's transportation goals. The SFTP is updated every four years, which provides the chance to make refinements and account for new and emerging issues and opportunities.

TRANSPORTATION FUNDING

The SFTP Investment Plan includes about $80 billion in revenues for transportation in San Francisco through 2050, including about $2.8 billion in anticipated new federal, state, and regional funds consistent with assumptions in the region's PBA 2050. Most of this revenue (about 85%) is already committed to specific projects and purposes like local streets operations and maintenance, the Mission Bay Ferry Landing, and programs like transit operations. About 15% of the expected revenues are discretionary, meaning that there is flexibility in how they can be invested to improve the transportation system. The SFTP captures these commitments and, through the Investment Plan, proposes how to invest the discretionary revenues most effectively to make progress toward our goals.

The SFTP also includes a Vision Plan because the transportation needs are greater than the expected revenues for transportation. The Vision Plan imagines how to get closer towards city goals with significant new revenue sources. The Vision Plan totals about $95 billion. It assumes all of the Investment Plan revenues and layers on an additional $15 billion in potential new revenue sources. The plan does not specify what these new revenue measures should be; they could be a combination of local, regional, state, and federal revenues. The Investment Plan and Vision Plan allocate the discretionary revenues based on the priorities identified through public outreach, technical analysis, and known city and regional priorities.

Figure 7 compares transportation revenues assumed in the Investment Plan and Vision Plan. Figure 8 shows the revenue sources. Most of the revenues are local, which are increasingly important for leveraging regional, state, and federal funding opportunities.

Figure 7: Committed, discretionary, and vision revenues in the SFTP, in Billions of Dollars, 2020

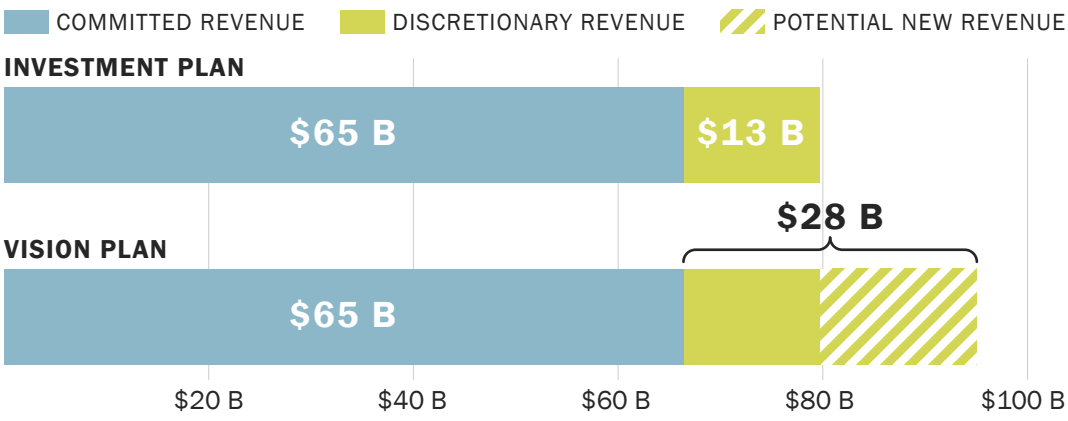
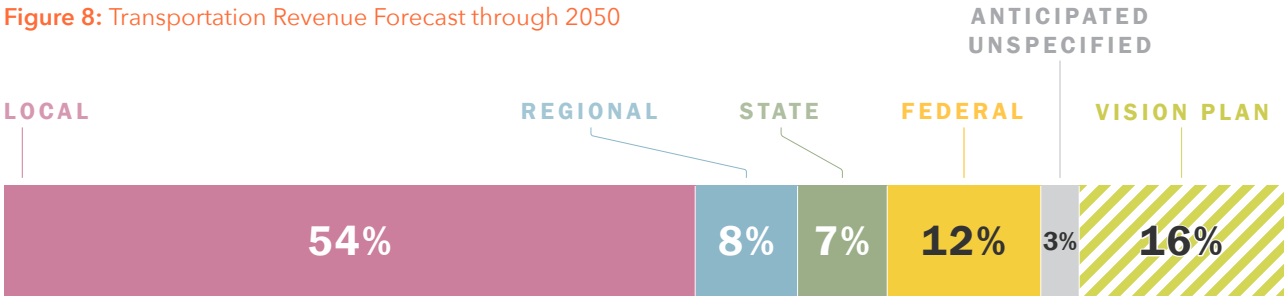


Figure 8: Transportation Revenue Forecast through 2050



Appendix B includes the assumptions used to estimate expected revenues in more detail.[1] All revenues are shown in 2020 dollars.

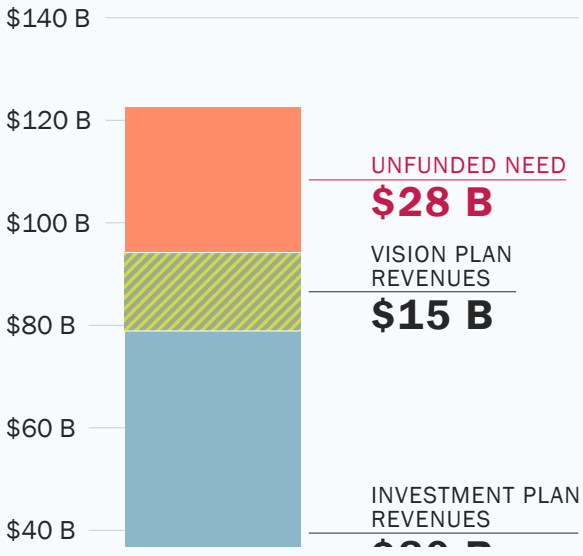
The transportation needs exceed the revenues in the SFTP. For example, if all discretionary revenues were put towards transit maintenance, there would still not be enough revenues to eliminate the maintenance backlog. The SFTP includes needs beyond transit, which means that revenues need to be prioritized across the entire multi-modal transportation in order to achieve a balanced system.

1 See Revenues strategic topic paper

UNDERSTANDING OUR NEED

The SFCTA issued a call for projects to all the transportation agencies and departments that serve San Francisco. This call asked for all capital and operating funding needs for the 2021 – 2050 period. Agencies were asked to draw on operating budgets, capital plans, PBA 2050 project lists, and other planning documents to provide this information. SFCTA staff compiled this information to inform the development of the Investment Plan and Vision Plan for the SFTP 2050, as well as the 2022 Transportation Sales Tax Expenditure Plan.

Figure 9: San Francisco's Transportation Needs through 2050



SFTP 2050 Recommendations

PROGRAMS AND PRIORITIES

Investments in complementary projects and programs will be needed to address San Francisco's transportation challenges and realize the ConnectSF vision. A key role of the SFTP is to prioritize expected and potential new revenues through 2050 to create an investment blueprint for San Francisco's comprehensive transportation system. The SFTP presents two funding plans: the Investment Plan and the Vision Plan. The Investment Plan matches expected and available revenues to future investments, and the Vision Plan demonstrates how additional potential new revenues could be used to further fund outstanding transportation needs.

The SFTP built on previous phases of ConnectSF, including the vision and goals stages, and draws from two modal plans: The Transit Strategy, and The Streets and Freeways Strategy. It was informed by community engagement throughout these processes as well as the development of the 2022 Transportation Sales Tax Expenditure Plan. San Francisco's 2021 Climate Action Plan Update, and multiple neighborhood, citywide, and regional transportation plans. Input from all these sources was used to define priorities for strategic investment.

Based on these inputs, the below guiding principles were used to develop the Investment Plan, each with a focus to address known transportation inequities:

- Invest to maintain transportation infrastructure in overall good condition and reduce the maintenance backlog to improve safety and reliability
- Invest to improve transit reliability and efficiency, particularly on the busiest lines and to reduce equity disparities
- Invest in core capacity and rail modernization to allow for more frequent and reliable Muni and BART train service and improve safety across the system
- Invest in street safety improvements across the city
- Invest in the walking and bike network to close gaps and improve connections to transit

The additional revenues in the Vision Plan will enable further progress toward the SFTP goals. Based on outreach findings and known transportation goals and priorities, the below guiding principles were used to guide investments for the additional Vision Plan revenues:

- Increase funding levels for Muni operations to meet or exceed pre-pandemic service levels

- Support Muni transit reliability and metro modernization by focusing on state of good repair
- Invest in street safety for all travelers
- Advance transformative transportation projects to add rail capacity and reconnect communities and repair past harms of past investments in our major roads and freeways

The 2022 Transportation Sales Tax Expenditure Plan – a recently passed 30-year continuation of San Francisco's existing half-cent transportation sales tax to 2053 – helps to implement the SFTP by making up a portion of the discretionary revenues that are used to leverage federal, state, and other revenues. The 2022 Transportation Sales Tax Expenditure Plan anchors the SFTP Investment Plan, which uses the investment categories of the 2022 Transportation Sales Tax Expenditure Plan plus one additional category for transit operations. These categories are summarized below.

1. **Major Transit Projects** includes transit reliability, speed and capacity capital improvements to support local and regional operators providing more frequent bus and rail service, running longer trains, and extending Caltrain in San Francisco.
2. **Transit Maintenance and Enhancements** includes transit maintenance, rehabilitation, and replacement of local and regional transit infrastructure serving San Francisco, and enhancements such as stop/station access improvements, new stations, and planning for the next generation of transit projects.
3. **Paratransit** includes door-to-door van, taxi, and other transportation services for seniors and people with disabilities who are unable to use fixed route transit service.

NEXT GENERATION REGIONAL PROJECTS AND INITIATIVES

Partner transportation agencies are advancing projects and initiatives that the city supports but whose costs aren't accounted for in this plan's funding envelope. Most are in the early stage of development, with only preliminary cost, schedule, scope details, and significant funding gaps. This includes major projects such as Link21, which will include a new transbay passenger rail crossing between Oakland and San Francisco; the Bay Skyway project, which will construct a bicycle and pedestrian pathway on the west span of the San Francisco-Oakland Bay Bridge; the regional express lane network; and the California High Speed Rail project.

PBA 2050 also includes regional initiatives consistent with the SFTP's objectives, such as the implementation of regionwide transit fare integration, robust demand management strategies, and the expansion of resilience and electrification programs. The SFCTA will continue to coordinate with sponsors of these projects and policy initiatives and provide input to planning, development, and as appropriate, implementation, as additional details emerge.

4. **Streets and Freeways** includes pedestrian and bicycle safety and traffic calming, maintenance, rehabilitation and replacement of road infrastructure, streetscape improvements, freeway safety, and operational improvements. Expansion of the active transportation network is also included with a focus on achieving Vision Zero.
5. **Transportation System Development and Management** includes neighborhood and equity planning to create a pipeline of projects across the city and Transportation Demand Management strategies that include cost-effective projects that support shifting when, how, and where people travel.
6. **Transit Operations** includes transit operations for Muni and San Francisco's share of regional transit services, except for Muni paratransit operations, which is shown in a separate category.

INVESTMENT PLAN AND VISION PLAN

Figure 10 and Table 3 present SFTP investment categories with the total need, Investment Plan funding, and Vision Plan funding. See Appendix A for more details of the needs and investment levels.

About $2 billion of the new local/regional discretionary revenue in the Vision Plan is set aside as a placeholder for transit system investments. Given the uncertainty the city faces, this allows flexibility for future new revenue to be directed towards transit operations to further increase service levels, transit capital maintenance and/or priority and rehabilitation to improve reliability, and/or to capital projects to further expand bus or rail in San Francisco. The SFCTA will continue to work closely with local and regional stakeholders to identify which new revenue sources to pursue and when and how to best allocate the resources.

Figure 10: Investment Categories, Total Needs, and Investment Levels, in Billions of Dollars, 2020

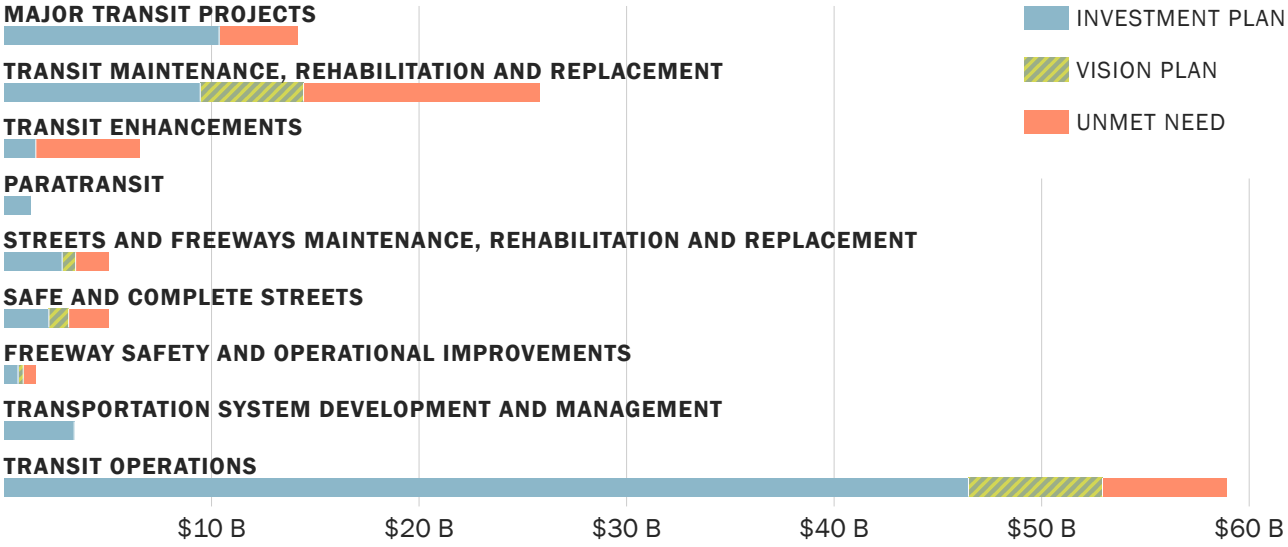


Table 3: SFTP Investment Categories, Total Needs, and Investment Levels, in Billions of Dollars, 2020

NAME	DESCRIPTION	NEED (B)	INVESTMENT PLAN (B)	VISION PLAN (B)
Major Transit Projects	Funding for Muni reliability and efficiency projects in addition to major system enhancements and capacity expansions such as BART and Muni Core Capacity and the Caltrain Downtown Extension	$14.15	$10.37	$10.37*
Transit Maintenance and Enhancements				
Transit Maintenance Rehabilitation and Replacement	Vehicles, guideways, and facilities maintenance for Muni, BART, and Caltrain	$20.85	$9.39	$14.37*
Transit Enhancements	Customer-facing improvements that promote system connectivity, accessibility, and improve transit service experience for riders	$6.51	$1.49	$1.49*
Paratransit	Door-to-door van, taxi, and other transportation for seniors and people with disabilities who are unable to use fixed-route transit service	$1.27	$1.27	$1.27
Streets and Freeways				
Maintenance, Rehabilitation and Replacement	Funding to prevent the deterioration of roadways and maintain pavement, sidewalks, signs, signals, and bike lanes	$8.76	$2.79	$3.44
Safe and Complete Streets	Programmatic improvements to the transportation system to make it safer for all road users, to help achieve Vision Zero, and to expand the active transportation network	$7.43	$2.10	$3.05
Freeway Safety and Operational Improvements	Improvements to the freeway network to improve transit speeds and promote carpooling, improve safety for all travelers at on- and off-ramps, and improve connectivity	$1.26	$0.49	$0.74
Transportation System Development and Management				
Transportation Demand Management	Cost-effective projects intended to shift trips to more sustainable modes like transit, walking, and biking, and to shift travel to less congested times	$2.86	$2.82	$2.82
Transportation, Land Use, and Community Coordination	Citywide and community-based planning to improve equity-focused planning and identify transportation improvements that support increased housing density in existing low-density neighborhoods.	$1.18	$1.18	$1.18
Transit Operations	Local and regional transit operations and fares, plus the extension of the SFMTA's Free Muni for Youth program through 2050	$57.75	$46.47	$52.93*
Existing Obligations	Existing Prop K sales tax debt obligations	$0.55	$0.55	$0.55
Total		$124.63	$78.9	$92.2

* Programs where about $2 billion of the new local/regional discretionary revenue in the Vision Plan is set aside as a placeholder for transit operations/transit capital investments could be allocated

The following pages show what specific achievements that San Francisco could see from the Investment Plan and Vision Plan. Achievements are organized by categories in the table above.

Core Capacity and Transit Priority

From Major Transit Projects in Table 3

The Investment Plan funds the SFMTA's Muni Metro Modernization/ Subway Modernization Program and BART's Core Capacity Program – packages of strategic investments that will safely and reliably move more people along San Francisco's rail system. Upgrades to both the Muni and BART train control systems and facilities will allow both agencies to run more frequent trains; the SFMTA will be able to run longer trains. These upgrades will reduce transit crowding and increase frequency and reliability along San Francisco's rail network.

The SFTP also funds transit priority on streets with the busiest bus lines.[1] Improvements include transit-only lanes, signal improvements to reduce the time buses wait at red lights, and transit stop improvements like longer and accessible boarding islands.

Mission Bay Ferry Landing

From Transit Enhancements in Table 3

The Investment Plan fully funds a Mission Bay Ferry Landing, which will provide regional ferry service to and from the Mission Bay, Potrero Hill, and Dogpatch neighborhoods with an estimated capacity of 6,000 passengers per day. The landing will alleviate current regional transportation crowding, provide transportation resiliency in the event of an earthquake, BART or Bay Bridge failure, or other unplanned events, and will reduce San Francisco's carbon footprint.

Downtown Rail Extension

From Major Transit Projects in Table 3

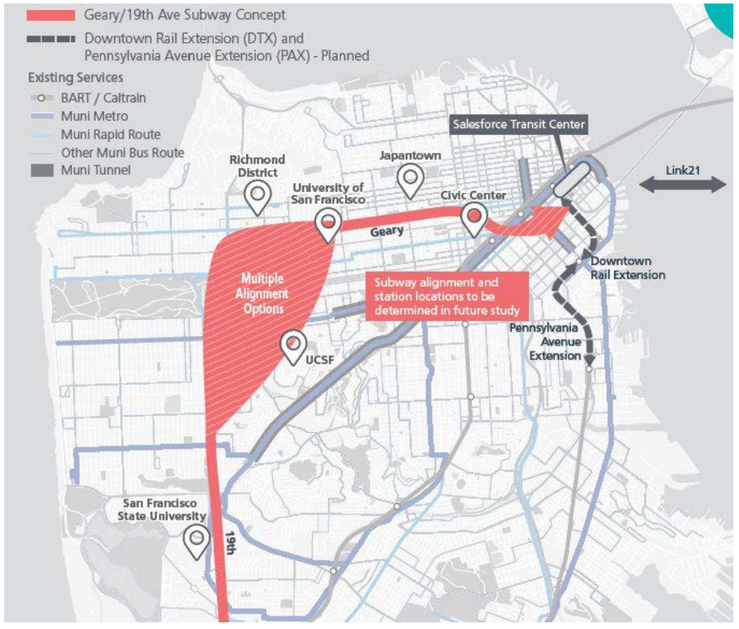
The Investment Plan fully funds the Downtown Rail Extension, which will extend Caltrain and future California High-Speed Rail service from the existing 4th and King railyard to the newly constructed Salesforce Transit Center. The project will ultimately connect 11 Bay Area transit systems from San Francisco to the East and North Bays, and the Peninsula and South Bay, providing a one-seat ride from the Bay Area to Los Angeles through the California state rail system.

1 https://connectsf.org/transit-strategy

Southeast Caltrain Station

From Transit Enhancements in Table 3

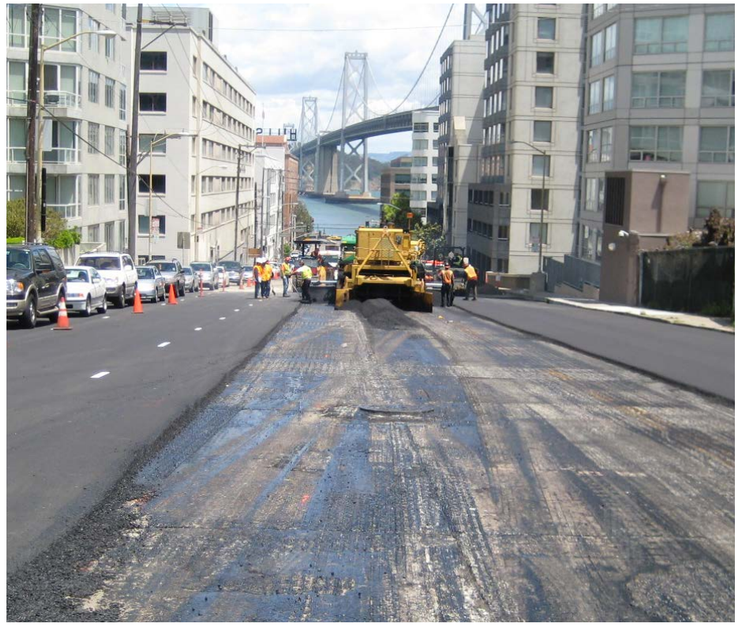
The Investment Plan fully funds a new Caltrain station in the Bayview neighborhood which will restore regional rail service that was lost when the Paul Avenue station closed in 2005. The new station will ensure Bayview residents have better access to the regional transit system and benefit from planned investments in high-speed rail and the Downtown Rail Extension.



Next Generation Transit

From Transit Enhancements in Table 3

The SFTP Investment Plan funds preliminary planning work and has room for implementation for San Francisco's next generation of transit investments envisioned in San Francisco's Transit Strategy, including a subway line on Geary and 19th Avenue, a new transbay rail crossing (Link 21), and an extension of the Central Subway to Fisherman's Wharf. Additional investments in preliminary planning and implementation could be made in the Vision Plan, depending on how the potential $2 billion in local/regional discretionary revenue that is set aside a placeholder for transit operations/transit capital investments is allocated.



Repaving

From Street Maintenance in Table 3

The SFTP Investment Plan funds ongoing street maintenance, which will maintain San Francisco's recently attained 10-year pavement quality goal and improvements and upgrades to signs, signals, and pavement markings. Well-maintained streets are less expensive to repair. Road maintenance and repairs also support safe and efficient travel for all street users and reduce vehicle repair costs and transit vehicle maintenance costs.

Safe Routes to Schools

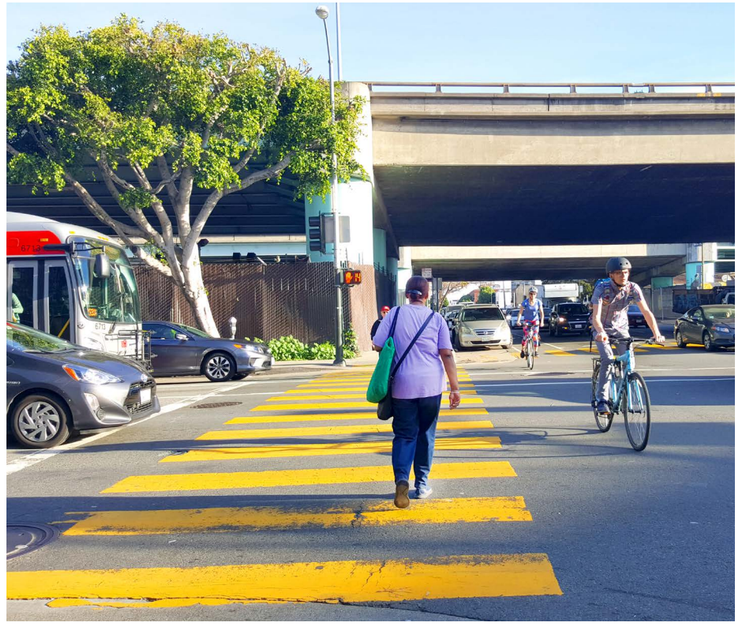
From Safe and Complete Streets in Table 3

The Investment Plan and Vision Plan maintain and expand the San Francisco Safe Routes to School program. This program aims to make walking and bicycling to school safer and more accessible for all children through educational programming and infrastructure improvements around school sites.

Vision Zero and Pedestrian Safety

From Safe and Complete Streets in Table 3

San Francisco adopted a Vision Zero policy in 2014, committing to build better and safer streets, educate the public on traffic safety, enforce traffic laws, and adopt policy changes that save lives. The Investment Plan and Vision Plan fund investments to make streets safe and address the leading causes of serious injuries and death on our roadways. Improvements include about 200 miles of improvements to the pedestrian and bike network,[1] new crosswalks, curb ramps, traffic calming to slow speeds, and complete streets efforts to create dedicated space for transit, walking, and biking.



Vision Zero Ramps

From Freeway Safety and Operational Improvements in Table 3

The Investment Plan funds near-term safety improvements to freeway on- and off-ramps where they intersect with local streets. These investments will improve safety for all road users and can help close gaps in the walking and biking network. New and upgraded traffic signals, pavement markings, crosswalks, and sidewalk extensions are examples of Vision Zero ramp improvements.

1 Streets and Freeways Strategy and Active Transportation Study; https://connectsf.org/about/resources-and-media

Managed Lanes on Freeways

From Freeway Safety and Operational Improvements in Table 3

Managed lanes (e.g., carpool lanes and express lanes) allow for more efficient use of the freeway network by moving more people in fewer vehicles along San Francisco's congested freeways. The Investment Plan includes funding for managed lanes along portions of I-280 and US-101, plus capital improvements for new express buses that can reduce driving trips, increase transit reliability, and enhance travel options for underserved communities.

Downtown Congestion Pricing

From Transportation Demand Management in Table 3

The Investment Plan funds a congestion pricing program with the goals of getting traffic moving, improving safety, improving air quality, and advancing equity by improving health and transportation for historically underinvested communities. The congestion pricing program uses a means-based system to charge drivers a fee to drive into congested areas of northeast San Francisco during the most congested times. Revenues from the program are reinvested into the transportation system to increase transit service to the downtown core with 170 new local and regional bus trips and 15 light rail trips daily, improve pedestrian and bicycle connectivity and safety, and repair streets within the pricing zone.

Treasure Island Transportation Program

From Transportation Demand Management in Table 3

By 2036, the Treasure Island neighborhood will grow by up to 8,000 homes, 27% of which are affordable, and housing more than 20,000 new residents, bringing tens of thousands of new trips to and from the Island each day. The Investment Plan funds a comprehensive transportation program for the Island, creating a means-based toll for vehicle trips on the Island, an affordability program to ensure transportation options are affordable and accessible to all residents, and many sustainable transportation options for new and existing residents to meet the Island's transportation goal to have at least 50% of trips made by walking, biking, bus, and ferry.

photo by SFMTA Photography Department

Neighborhood and Equity Priority Transportation Programs

From Transportation System Development and Land Use in Table 3

The Investment Plan funds the SFCTA's Neighborhood Transportation Program which supports neighborhood-scale transportation planning and provides local match to advance plan recommendations in each supervisorial district. Neighborhood transportation plans establish a pipeline of grant-ready projects throughout the city that reflect community priorities, such as street safety, mode shift, transit accessibility, and mobility. Similarly, the Investment Plan creates a new Equity Planning Program to fund community-based planning in Equity Priority Communities and equity studies citywide, with matching funds to implement recommendations.

photo by SFMTA Photography Department

Free Muni for Youth

From Transit Operations in Table 3

The SFMTA Free Muni for Youth is a pilot program that allows free trips on Muni to all youth 18 years or younger regardless of household income with no application required. The pilot will conclude in 2024 based on current funding. The Investment Plan funds this program through 2050.

photo by SFMTA Photography Department

Transit Operations

From Transit Operations in Table 3

The Investment Plan funds Muni light rail service in San Francisco to operate at 2019 investment levels. Muni bus service is funded to the equivalent of 2022 investment levels. The Vision Plan includes potential new revenues to help meet the regional transit operating needs and increase Muni transit operations investment levels beyond 2019 levels. Additional investments to further fund Muni transit operations could be made to in the Vision Plan, depending on how the potential $2 billion in local/regional discretionary revenue that is set aside a placeholder for transit operations/transit capital investments is allocated.

INVESTMENT PLAN BENEFITS

To understand the benefits of the Investment Plan, the SFCTA evaluated the impacts of the SFTP 2050 investment scenario through a technical modeling process. Key metrics from the SFTP Investment Plan scenario compare a future year 2050 scenario, with and without the SFTP Investment Plan projects and programs.

MODEL SCENARIO DETAILS

The impacts of the SFTP Investment Plan on transportation goals are analyzed with the San Francisco Chained Activity Modeling Process (SF-CHAMP). The future year (2050) baseline allows for a comparison of the SFTP investments. The future year baseline includes future growth represented by the MTC's PBA 2050 growth projections and the San Francisco Planning Department's land use distributions; transit service represented by summer 2022 Muni transit service, 2019 BART frequencies, and Caltrain post-electrification service; and projects that will soon be open or are already fully committed such as Muni's Central Subway. The Investment Plan scenario has identical land use assumptions to the baseline scenario, all projects in the baseline scenario, and additional projects which can be funded through the Investment Plan detailed in Appendix A. The Vision Plan was not modeled due to the assumption of flexibility in the investment choices described above. The full modeling methodology and results can be found in Appendix C.

The SFTP also conducted an equity evaluation to measure the impacts of the Investment Plan on each Equity Priority Community area. This analysis, detailed in Appendix D, provides insight into equity impacts of the Investment Plan. It found that Investment Plan projects address many of the needs of equity priority communities.

Taken together, and despite the significant financial challenges triggered by the pandemic, the investments outlined in the SFTP will create positive impacts in San Francisco and advance ConnectSF goals. Planning for our next generation of transportation investments will require additional revenues to implement. Figure 11 shows how the SFTP investments, rooted in ConnectSF goals, support positive outcomes for San Francisco.

Figure 11: Investment Plan Impacts

	EQUITY	ECONOMIC VITALITY	ENVIRONMENTAL SUSTAINABILITY	SAFETY AND LIVABILITY	ACCOUNTABILITY AND ENGAGEMENT
Shift in Driving Mode Share	+	+	+	+	
Vehicles Miles Traveled/GHG	+		+	+	+
Job Access	+	+			
Commute Time		+			
Safety	+			+	+
Affordability	+	+		+	

CLIMATE ACTION PLAN

The San Francisco Climate Action Plan sets a goal to have 80% of trips in San Francisco be made by non-driving modes by 2030.[1] The SFTP Investment Plan will help shift modes across the city through capital investments and policy initiatives such as TDM. Of trips to, from, and within San Francisco on a typical pre-pandemic weekday, 45% are taken by driving modes, and roughly half of those are drive-alone trips. Of trips entirely within the city, about 40% are taken by driving modes. More than half of those driving trips are under two miles in length. For trips less than one mile, there are more than 10 times as many driving trips as there are bike trips. These short driving trips present an opportunity for TDM strategies to shift neighborhood-based driving trips to more environmentally friendly options.

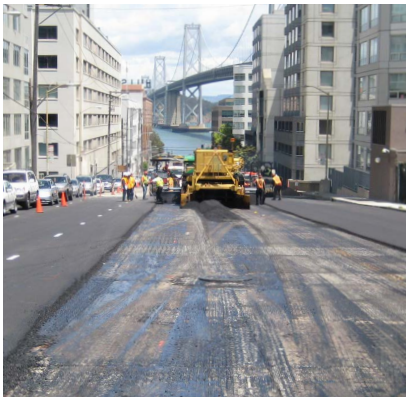
1 https://sfenvironment.org/climateplan

The SFTP Investment Plan will:

- **Fund safer streets** with over 200 miles of pedestrian and bike improvements. Street safety investments will advance a range of Vision Zero priorities such as traffic calming, Safe Routes to School, and pedestrian improvements like sidewalk extensions and crosswalks. Investments in safer streets will advance equity by reducing the rates of traffic violence, which disproportionately affect seniors, people with disabilities, and people of color. Safety improvements are especially critical to advancing equity in San Francisco because a disproportionate share (29%) of the city's High Injury Network are located in Equity Priority Communities.[1]

Photo by SFMTA Photography Department

- **Maintain smooth streets** through regular and timely maintenance. Keeping streets smooth and in good condition benefits all travelers. Plan investments include the maintenance, replacement, and/or upgrade of sidewalks, signs, signals, and pavement markings (including crosswalks and bike lanes) to support safety and accessibility. The Investment Plan funds street maintenance for San Francisco to maintain the current average pavement quality of 75, or "good", through 2050. Smooth streets are less expensive to repair and reduce the amount of maintenance required for both private and public transit vehicles, which can burden low-income households.



- **Support reliable, accessible transit** by funding both operations and capital improvements to make the transit system operate more reliably, safely, and efficiently. Transit capital maintenance is essential to a functional system. Capital improvements such as Muni Forward transit priority enhancements and Core Capacity improvements for BART and Muni will reduce crowding and improve transit reliability. The Investment Plan further advances equity by funding Paratransit operations and Free Muni for Youth.

Photo by SFMTA Photography Department

1 https://www.sfcta.org/sites/default/files/2022-11/SFCTA_Board_SFDPHHighInjuryNetwork_2022-11-15.pdf

- **Reduce congestion and improve accessibility** with investments to use street space more efficiently and prioritize transit. These investments would lead to an 8% increase in job access by transit. Residents of Equity Priority Communities in many parts of the city would see an even greater benefit than the city average. Transit priority on the busiest bus lines, where transit is currently mixed with general traffic, and Downtown Congestion Pricing would improve transit speeds by 15% citywide, dropping transit commute times and saving transit commuters about seven hours per year; commute times would also fall for people who drive. Transit commute times would improve most for San Francisco's low-income residents.
- **Improve air quality** by shifting some trips away from driving and to other modes. The Investment Plan would reduce the daily vehicle miles traveled of San Francisco residents by an average of 4%. Equity Priority Communities that currently have elevated health risks due to exhaust and pollution in their neighborhoods would benefit from fewer vehicles traveling through their neighborhoods. The reduction in vehicle miles traveled and investments to electrify the transit fleet and ferries will help reduce greenhouse gas emissions in the city.

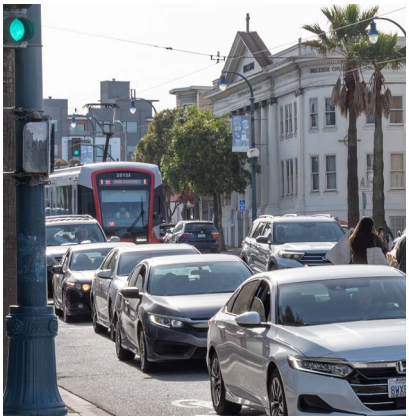


Photo by SFMTA Photography Department

Photo by Sergio Ruiz, flic.kr/p/25zXP6y

VISION PLAN

Though the Investment Plan is a robust funding strategy that will deliver tangible transportation improvements for San Franciscans, there are additional needs beyond what can be funded with the Investment Plan. The Vision Plan includes about $15 billion in additional, new revenues. While the types of revenues are not specified, there would likely need to be some combination of new local, regional, state, and/or federal revenues, some of which would likely need voter approval. Appendix A includes a detailed list of the revenue allocation in the Investment Plan and Vision Plan.

The Vision Plan builds on the Investment Plan and describes the investment priorities for potential new revenues to close gaps and further advance transportation goals. Like the Investment Plan, the Vision Plan recommends how potential funds be allocated based on city, regional, and community priorities. See pages 28 – 32 for an overview of how revenues in the Vision Plan are prioritized and how San Francisco can benefit from the SFTP 2050 investments. The additional revenues would provide:

- Additional funding for transit operations to close funding gaps for San Francisco's share of BART and exceed pre-pandemic investment levels for Muni.

- Additional investment to reduce the capital maintenance backlog for all operators – BART, Caltrain, Muni – to improve transit reliability and safety.
- Additional investment in pedestrian safety improvements, including traffic calming, new street signs and signals, an expansion of the Safe Routes to School program, and additional investments to expand and close gaps in the pedestrian and bike network.
- Further advancement of transformative transportation projects to the transit system and to our major streets and freeways.

About $2 billion of potential new revenues in the vision plan is set aside as a placeholder for Muni transit operations or maintenance and capital investments that further advance the next generation of transit projects. This allows flexibility for this future new revenue to increase transit service levels, reduce the transit maintenance backlog and increase on-street priority to improve reliability, and/or to capital projects to further expand bus or rail in San Francisco. The SFCTA will continue to work closely with local and regional stakeholders to assess these revenue and investment options.

POLICY INITIATIVES

In addition to the projects and programs advanced in the Investment Plan and Vision Plan, the SFTP identifies policy initiatives for further study and advancement. These policy initiatives address transportation trends and larger needs that require further exploration and advancement to strengthen investment priorities and their impacts on transportation goals. Some of the policy initiatives identified are continued from SFTP 2040 and some are new for SFTP 2050.

Transit

Transit Funding for Operations and Maintenance

The available revenues in the SFTP cannot meet the long-term needs for transit operations and maintenance. It has been the case for previous SFTPs and previous versions of PBA 2050 that costs to maintain the transit system in a good condition (e.g., where assets are replaced at the end of their useful life and regularly maintained) outpaced available revenues. This forced prioritization of certain investments, typically urgent needs like bus and train replacement and track repair, while other preventative or lifecycle maintenance needs were partially addressed or deferred. Of note, this SFTP cycle is the first time the SFTP could not identify sufficient operations funding to maintain or grow transit service levels from the base year over the life of the plan. Significantly lower ridership demand and corresponding loss of fare revenue, declines in other key revenues like parking revenues, and increased operating costs have created unprecedented financial deficits for all transit operators in the region. BART, Caltrain, the SFMTA, and other operators are all facing an estimated $2-billion five-year transit fiscal cliff for operations when federal relief funds that kept agencies afloat during the pandemic run out as soon as 2025.

Underfunding vehicle and infrastructure maintenance will lead to less reliable service. The Investment Plan provides funding for fleet replacement and guideway and facility improvements for all transit operators. Local funds prioritized for this purpose will leverage significant regional and federal monies. The Vision Plan provides additional revenues to further close the funding gap. However, it is not enough to fully fund all of the anticipated transit system maintenance needs. The SFCTA will continue to collaborate with the SFMTA, regional transit operators, and MTC to seek additional funding to maintain transit infrastructure in a state of good repair.

Photo by SFMTA Photography Department

With respect to transit operations, the SFTP Investment Plan can maintain 2022 funding levels to Muni and San Francisco's share of 2019 regional rail operations investments, leaving inadequate funds to meet anticipated increases in costs such as operator pay raises, supply chain impacts, or to expand service hours beyond current levels, with the exception of existing commitments such as the Central Subway. New funding will be needed just to maintain current transit service levels in the long term. This structural deficit creates financial obstacles to improving service to underserved communities and addressing future growth. Regional rail ridership demand is recovering slower than local bus and metro service. However, compared to local bus service, regional rail service is less conducive to downscaling to meet lower demand and the available budget given the relatively high fixed costs of providing service. It is clear that additional local and regional funding, along with state and federal transit operating support or other private contributions, will be needed to sustain the level of transit services needed to meet the region's climate targets and other goals. MTC has made seeking transit operation funding a top legislative priority for the upcoming legislative session.

Beyond the need to secure new funding to just maintain current operating budgets, additional new funding will be necessary to increase transit service hours to meet or exceed pre-pandemic levels, reduce crowding, and support future growth. The SFTP Equity Analysis (Appendix D) can be used to understand how new transit funding can help meet the needs of Equity Priority Communities and parts of the city where there is more limited transit frequency, access, or service (like the western and southern sectors of the city). Additionally, if new stable sources of revenues for transit operations can be secured, this could reduce pressure on fare increases and/or support expanded transit affordability programs in the future.

Given the unprecedented changes brought about by the pandemic and the still-evolving travel patterns and financial conditions, it will be critical for local and regional transit agencies to continue to closely monitor conditions, track system performance, and update cost and ridership projections. That data can be used to inform service planning and help prioritize capital maintenance and enhancements. The SFCTA can support these efforts through its data warehousing and reporting efforts, including regular biennial updates to its Congestion Management Program (CMP).

Regional Transit Coordination

As the city and region grow and seek to meet climate goals, the Bay Area needs to continue efforts to improve coordination among its 27 regional transit operators to create a more connected and customer-focused system with easier transfers and integrated fares. This has been the focus of a number of recent regional efforts that the SFCTA, the SFMTA, and other regional transit agencies have been engaged in, stemming from MTC's convening of the Blue Ribbon Transit Recovery Task Force in 2020, and the approval of the region's Transit Transformation Action Plan in 2021. The Action Plan outlines several areas for the region to improve transit connectivity in the near term: integrated transit fare and transfer policies; universal mapping and wayfinding; and bus transit priority on roadways. The region is also studying whether to designate an entity to serve as a network manager, tasked with performing centralized planning, implementation, and oversight of regionwide transit system coordination. Work is currently underway to advance these initiatives, as is a two-year pilot of BayPass. This single pass will provide about 50,000 Bay Area residents free access to all bus, rail, and ferry services in the nine-county region, with the exception of special event services.[1] Some of these areas, in particular fare integration and transfer policies, warrant pilots to evaluate effectiveness and cost impacts. Expanding these policies will likely require a significant, ongoing new revenue source. Looking forward, the city supports these important efforts but also wants to ensure that the tradeoffs are well understood, that there are not negative budget impacts for San Francisco transit operators, and that the SFMTA sees its fair share of new revenue in light of the city's historic high level of investment in transit subsidies (e.g., discounts and keeping fares low) and large share of low-income and transit-dependent riders, which contrasts with many other Bay Area transit systems with relatively low levels of public transit operating subsidies. In the meantime, since the beginning of the pandemic, the region's transit operator chief executives and staff have been meeting weekly to coordinate and improve the rider experience by providing unified and transparent communication to build confidence in the transit network, making riding transit easier and more affordable, improving connections to make riding between systems easy

1 https://mtc.ca.gov/news/clipperr-baypass-sets-sail-unlimited-transit-access

and convenient, providing real time information for riders, improving the paratransit experience, and planning for a more connected network to improve mobility.

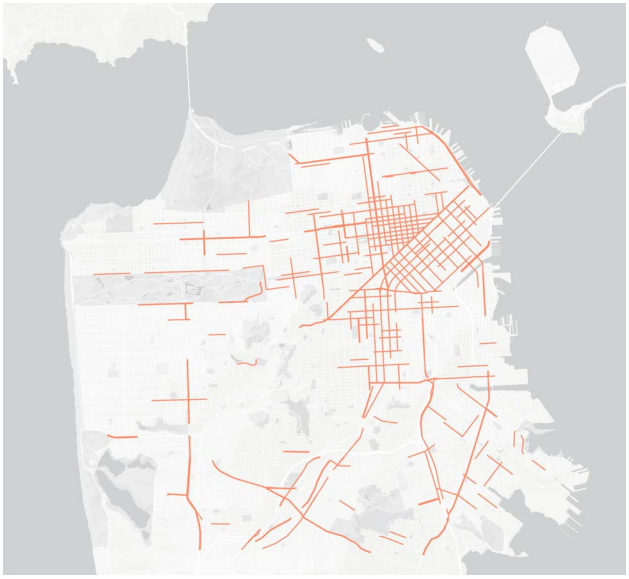
The Transit Transformation Action Plan also calls for the development and adoption of a Bay Area Connected Network Plan to include transit service and mobility hub categories, core service networks, funding requirements, and next steps. MTC plans to kick off the next update to the regional transportation plan, PBA 2050, in 2023 and proposes to integrate the Connected Network Plan into that work. The city will engage with this planning work, ensuring that the needs of San Franciscans are represented in this network planning and that future investments in the city's transit system are addressed in the plan.

Safety

Street Safety

Vision Zero was adopted in 2014 with a goal to eliminate traffic fatalities by 2024. At the end of 2021, there were 27 traffic fatalities on San Francisco's streets; so far, in 2022, there have been 30 fatalities. The city's two-year action strategy prioritizes speed management, re-designing streets, and seeking automated speed enforcement tools. The San Francisco Public Health Department and the SFMTA recently updated the High Injury Network, which continues to describe a majority of severe and fatal collisions (68%) occurring on a small share (12%) of the city's overall road network. A comprehensive street safety strategy will help to mitigate high speeds and near misses across the city and reduce the likelihood of crashes, while an update to the High Injury Network will identify specific corridors with a history of collisions. The Streets and Freeways Strategy outreach process revealed that preferences for specific traffic safety improvements vary throughout the city (see Appendix F). Community engagement will be an important aspect to identify immediate and long-lasting street safety mitigations that reflect community transportation needs.

Figure 12: San Francisco's 2022 High Injury Network



To further support safety efforts, the city should continue to advocate for the authority to use speed cameras[1] for enforcement, which requires state legislation, in particular on streets with a higher share of vulnerable users, such as near schools, commercial areas, and locations that serve seniors and people with disabilities. Implementation of speed cameras should be paired with community engagement to ensure that the use of cameras is designed to address equity, affordability, and privacy concerns.

1 https://www.sfmta.com/projects/speed-safety-cameras

Personal Security

Photo by SFMTA Photography Department

During public outreach for ConnectSF and the 2022 Transportation Sales Tax Expenditure Plan, community members often raised concerns about personal safety while taking transit. Though reported crime on Muni[1] is below historic levels,[2] perceptions of safety risks are heightened, particularly for women and the Asian American and Pacific Islander community. BART and Muni are expanding ambassador programs and surveillance and planning new equity and safety initiatives to reduce harassment on transit. Improving personal security will require upgrading transit facilities and the public realm to create active spaces with more eyes on the street, as well as increased ambassador presence such as the city is undertaking downtown and in neighborhood commercial corridors during the 2022 holiday season. The SFCTA's ongoing School Transportation Access Study also found that personal security is a high priority for families and caregivers for the school trip. The SFTP includes investments in safety elements like lighting, security cameras, and elevator attendants. In addition, investments in Muni bus shelters across the city would not only help create consistency in transit facilities across the city, but would also help address personal security concerns for all travelers and improve equitable transit access.

Neighborhood Planning and Equity

Photo by SFMTA Photography Department

The 2022 Transportation Sales Tax Expenditure Plan includes a subcategory of Transportation, Land Use, and Community Coordination to advance this work in Equity Priority Communities. This includes dedicated funding for equity planning within San Francisco. Programs in this category fund community-based planning for each supervisorial district, underserved neighborhoods and areas with vulnerable populations (e.g., low income communities, seniors, children, and/or people with disabilities), citywide equity evaluations and planning efforts, and transportation efforts to support increasing housing density in existing, primarily low-density neighborhoods.

1 https://www.sfmta.com/reports/sfpd-reported-muni-related-crimes-100000-miles

2 https://sfgov.org/scorecards/transportation/crimes-muni

These investments create a pipeline of grant-ready projects across the city that reflect community priorities. Improved coordination between transportation and land use planning will bring new opportunities to provide more reliable and efficient transportation options for all people regardless of how they travel, paired with new land use opportunities for community priorities to address past displacement, support transit-oriented development, prevent future displacement, and address negative impacts of major streets and freeways like poor air quality and safety.

Transportation Demand Management

Planning for Mode Shift

As a result of the pandemic, travel patterns are changing in San Francisco and the region. Congestion on city streets dropped in early 2020 but has increased steadily as people return to work and the tourism industry recovers.[1] By June 2022, the number of vehicles crossing the Bay Bridge was within 5% of pre-pandemic levels, despite work-from-home rates remaining high. As the region continues to recover and employees return to San Francisco, vehicle trips will reach and may exceed pre-pandemic levels. Transit ridership, however, has not recovered as quickly, with ridership at about 50% of pre-pandemic levels (see the pandemic discussion on page 20).

Though congestion is returning, travel patterns have shifted away from the downtown core; however, it remains a major activity hub. Even before the pandemic, an increasing number of jobs and services were located outside the downtown financial district, yet much of San Francisco's transit system reflects a historic focus on bringing people to daytime jobs downtown. San Francisco's transportation systems needs to adapt to changing travel patterns, where the focus of activities is increasingly in the neighborhoods.

Transportation Demand Management (TDM) is a systematic approach to shift how, when, and where people travel through programs and policies. TDM is an effective tool that San Francisco and other cities use to address the rise in congestion associated with population and job growth. TDM was included as a policy initiative in the SFTP 2040 and is included in long-range plans for cities across the country because it is a proven tool to decrease the dependence on driving and maximize the efficiency and effectiveness of the transportation system.

To support more strategic investments in TDM, the SFTP recommends that San Francisco establish a vision and measurable goals for the future TDM strategy to guide development, implementation, and monitoring; identify priority geographic areas, trip types, travel markets, traveler types, and success metrics to guide program selection and implementation details; and provide guidance for how to incorporate ongoing

1 https://covid-congestion.sfcta.org

evaluation to track impacts on modeshift and cost effectiveness and guide future TDM investments.[1]

Equity-Focused Pricing and Incentives

Equity-focused pricing and incentives charge a fee to drivers who can afford it, provide discounts and exemptions for those who can't, and include incentives for choosing non-driving options that can help reduce the overall cost of transit. Pricing efforts are being considered at the state, regional, and local level because of the proven effectiveness in reducing congestion, addressing climate risks, and generating sustainable revenue sources to fund transportation programs. San Francisco will continue to actively participate in these broader discussions to provide city input. Within the city, the Investment Plan and Vision Plan support demand management activities including on Treasure Island, downtown congestion pricing, and transportation demand management programs like parking management and transportation incentives like rewards for using non-driving options. Key to each of these is centering the decision-making process and program design on equity.

Equitable road pricing programs can reduce private vehicle trips and traffic congestion to allow the limited road and freeway space to be used more efficiently. The implementation of a successful program would allow transit vehicles to move more quickly and reliably and reduce travel times for people who must or choose to continue to drive and would otherwise be traveling on congested roadways. Pricing programs can also help to reduce emissions, traffic fatalities, and serious injuries, and wear and tear on the roadways.

SAN FRANCISCO AND BAY AREA REGIONAL PRICING EFFORTS

In 2021, amid the uncertainties and economic challenges of the pandemic, the SFCTA paused the Downtown Congestion Pricing Study in response to public feedback and to observe return to work and congestion trends. Working in the SFCTA's role as the Treasure Island Mobility Management Agency, the SFCTA continued to conduct outreach and develop tolling and affordability policies as part of the comprehensive mobility and congestion management program for Treasure Island. These strategies seek a balanced design to ensure an outcome that is both fair and effective.

At the regional level, a strategy calling for the implementation of per-mile, all lane tolling on congested freeways with transit alternatives was adopted by MTC as part of PBA 2050, with the primary objective of reducing greenhouse gas emissions in the region to state-mandated targets. MTC is currently engaged in pre-implementation work, including its Next-Generation Bay Area Freeways Study, a multi-pronged effort to explore freeway pricing mechanisms and complementary strategies through a robust technical and public engagement process. This study is expected to conclude in 2023 and recommend potential pathways for implementation.

1 See Transportation Demand Management (TDM) and Long Range Planning strategic topic paper

Pricing for Infrastructure Funding

Pricing programs can also serve as user fee-based revenue mechanisms to fund transportation infrastructure of services. The State of California is studying how a road user charge (RUC) could replace the existing gas tax model as a major source of road funding, both due to declining gas tax revenues and to advance equity. Historically, gas taxes were meant to capture revenues to pay for maintenance and repair of roads and highways that gas-powered vehicles were driving on. The gas tax has become a declining revenue source as the fuel efficiency (e.g., miles per gallon) of vehicles improved and more electric and other clean fuel vehicles hit the roads. California has set a path for 100% of new cars and trucks sold in California to be electric vehicles by 2035 and road maintenance costs have increased at a far greater rate than the state and federal gas taxes, which demonstrates the long-term need. Hybrid and electric cars are currently more expensive than gas-powered cars and drivers of these vehicles pay little or no gas tax though they contribute to wear and tear on the roads, while those who drive older and less fuel efficient vehicles pay more because they purchase more fuel.

For these reasons, governments across the country (e.g. Washington, Oregon, and New York) and in Europe have become increasingly interested in the potential for a RUC as a more sustainable revenue source to replace or supplement the existing gas tax model. RUCs are designed to have drivers pay to maintain the roads based on how much they drive rather than how much gas they purchase. While gas taxes may still have a role to play as a disincentive for fossil fuel consumption and to fight climate change, alternative revenue sources are required to be able to fund our transportation systems.

Project Delivery

Capital Project Delivery

To support effective delivery of transportation improvements described in the SFTP, the SFCTA is leading an effort in collaboration with city agencies to uncover barriers to efficient project delivery for major capital projects, identify opportunities for improvement, increase collaboration across stakeholders, and improve accountability.[1] Case studies, workshops, and surveys of key project staff will culminate in the Transportation Capital Projects Delivery Study and a series of recommendations that San Francisco can use to effectively deliver projects over the life of this plan.

Shared Station Development and Improvements

There are six rail stations in San Francisco that are shared between BART and Muni. Certain aspects of station capital maintenance and customer-facing enhancements are the shared financial responsibility of both operators, while others are independent. Maintaining these stations in good condition, improving safety and security, increasing accessibility, and making enhancements to wayfinding and other station features are part of ensuring that transit is safe, convenient, and reliable. To this end, because the

1 https://www.sfcta.org/blogs/lessons-learned-approach-improve-delivery-large-scale-transportation-projects

SFCTA funds station improvements at shared stations, the SFCTA will work with BART and the SFMTA to develop a mid- to long-range set of capital project priorities for the shared San Francisco stations and an accompanying funding strategy. Closer, more pro-active coordination and shared station improvement plans can make it easier to secure funding for projects in a timely fashion and can lead to lower costs, fewer customer facing impacts of construction and implementation, enhanced connectivity, and a more seamless customer experience.

The Downtown Rail Extension (DTX) will bring Caltrain and future California High-Speed Rail trains into the Salesforce Transit Center in the heart of downtown San Francisco.[1] The DTX project is utilizing an integrated, multi-agency approach to project development and delivery. In 2019, the SFCTA Board considered the results of a comprehensive expert peer review of the DTX project. The peer review recommended that the DTX partner agencies work together to deliver on a comprehensive work program to prepare the project for procurement and construction. This peer review led to the formation of the San Francisco Peninsula Rial Program Memorandum of Understanding, which established an integrated staff team and management governance that brings together six agencies, including DTX lead agency TJPA, to jointly develop the project. This best practice has led to the successful advancement of the complex procurement-readiness work program, and positioning of the project for major federal investment through the Federal Transit Administration's "New Starts" capital investment grant program.

New Mobility and Autonomous Vehicles

New transportation technologies can fundamentally change the way residents and visitors get around San Francisco. In 2018, the SFCTA and the SFMTA adopted guiding principles for new mobility to serve as a framework for evaluating these services and technologies, identifying ways to meet city goals, and shaping future areas of studies, policies, and programs.[2]

Recently, autonomous vehicle (AV) development and testing has picked up momentum with the first AV permit for commercial passenger services granted to Cruise to operate in San Francisco. AVs are vehicles that can operate without a human driver, to varying degrees. As of 2022, there are 49 AV companies with permits from the California Department of Motor Vehicles (DMV) to test on public roads in California. Between November 2020 through November 2021, there were over 4 million miles driven by AVs in California, 78% of which was by only two companies.[3] However, the future of AV technologies and business models is constantly evolving and warrants research and policy attention. How AVs are used in San Francisco and their potential effects depends

1 https://www.sfcta.org/projects/downtown-rail-extension

2 https://www.sfcta.org/policies/emerging-mobility#panel-guiding-principles

3 2021 Autonomous Mileage Reports and 2020-21 Autonomous Mileage Reports (driverless). DMV. https://www.dmv.ca.gov/portal/vehicle-industry-services/autonomous-vehicles/disengagement-reports/

on further development of the technology, federal and state regulatory actions, consumer adoption, and operational assessments.

Automated vehicle safety is regulated at the federal level, but operational regulations are primarily set at the state level. In California, regulations for commercial passenger and goods movement services are set by the California DMV and the California Public Utilities Commission who have permitting authority over automated driving and its use for passenger services. Currently, San Francisco roles are limited to regulating curb access (SFMTA), collecting ridehail fees (Prop D), and funding or leading pilots. The SFCTA's Treasure Island AV Shuttle Pilot project is demonstrating a shared-use application of driverless technology as a first/last mile service and opportunity for community partnerships. However, through pilot programs and other efforts, San Francisco may be able to gain insights into how AV deployment may be shaped by local plans and policies (e.g., San Francisco's curb and parking management plans). Insights from these early activities can help shape the pace and trajectory of this new technology. A spirit and practice of collaboration and transparency among all parties – public, private, regulatory and academic – is needed to help guide the development of the technology in alignment city goals and policies.

The availability of AVs could have a range of potential effects on San Francisco's transportation system, built environment, and residents, workers, and visitors. It is important that if AVs become more widely used, they support San Francisco's transportation goals and policies. The following efforts are suggested for further study as potential ways to mitigate negative impacts: continue to participate in AV regulatory proceedings at the state and federal level; continue to engage with AV developers, AV service providers, other stakeholders, and the public; assemble and analyze data to understand how the AV market evolves and to assess impacts on congestion, transit, environment, equity, etc.; provide insights to decision-makers on the AV impacts at a local level to encourage collaboration between the city and AV industry at the highest level; and identify and implement policies and investments that can mitigate the potential increases in vehicle travel.

Climate and Resilience

Resilience efforts in San Francisco address sea level rise, earthquakes, natural disasters, and other climate-related risks. The SFCTA reviewed current climate resiliency planning efforts in SF to assess how best to support climate change adaptation needs assessment, strategy and mitigation development and funding plans for implementation of these. This research focused on identifying opportunities related to transportation infrastructures' resilience to sea level rise and other natural hazards such as flooding and seismic events.

There are a number of resiliency efforts that address our transportation system. Staff documented many resiliency efforts in the city that include the development of

transportation projects. The transportation-related projects typically fall under one of two types: 1) projects that protect transportation infrastructure or 2) larger resilience projects that also provide opportunities to rethink our built environment to provide more transportation benefits. While most of these resiliency efforts are still in initial stages, three efforts for Ocean Beach,[1] Islais Creek,[2] and The Embarcadero Waterfront Resilience Program[3] are the farthest along and identify specific projects that will need funding in the next several years. Beyond these major efforts, other resilience needs can be addressed through state of good repair efforts like San Francisco Department of Public Works' roadway repaving programs, the SFMTA's subway renewal efforts, and the SFCTA's Yerba Buena Island ramp rebuilds.

As part of the continued resilience planning happening in the city, the Office of Resilience and Capital Planning is leading an effort to update the City's Capital Plan for San Francisco to include climate resilience. The Capital Plan update, which will be complete by early 2023, will better identify the transportation-related resiliency projects that are most needed in the years to come, and San Francisco can position itself to take advantage of the new transportation resilience funding opportunities as they become available.

One such funding source is the Infrastructure Investment and Jobs Act's Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) program through which California is expected to receive $630 million over the next five years. The California Transportation Agency is currently deciding how these funds will be distributed. The 2022 state budget also included $400 million for climate adaptation projects that support climate resiliency and reduce infrastructure risk. The SFCTA will seek to support San Francisco resilience efforts through coordinated planning, funding and delivery activities.

1 https://sfplanning.org/ocean-beach

2 https://sfplanning.org/project/islais

3 https://sfport.com/wrp

Monitoring and Reporting

Performance measurement is one of the SFCTA's statutory functions in its capacity as Congestion Management Agency, and as administrator of the San Francisco's half-cent transportation sales tax. The SFCTA will focus on performance tracking and evaluation in the following areas, spanning the monitoring of system needs and trends, project delivery, and project effectiveness. This work can also inform many of the previously mentioned strategic initiatives.

SYSTEM PERFORMANCE

Through biennial monitoring at the Congestion Management Agency (CMA), the SFCTA will track and provide information to the public on changes in congestion on San Francisco's major streets and freeways; transit ridership, speeds and reliability; bicycle and pedestrian counts; collision data; etc. Regular monitoring will help keep the city on track to meet long-term transportation goals and understand whether progress is being made. The SFCTA will also undertake or fund regular evaluation activities – such as the SFMTA's recent Vision Zero Quick Build evaluation studies or our own San Francisco Growth and Investment Strategy Study – that can inform future funding decisions and SFTP updates.

Documenting the Cost Effectiveness of Transportation Investments

The SFCTA will work with implementing agencies to evaluate the effectiveness of new projects and programs to inform future project prioritization and scoping, especially in the areas of transit speed and reliability, travel demand management, pedestrian and bicycle safety, and traffic calming. Two major projects underway include the Presidio Parkway P3 (Public-Private Partnership) Study and planned Van Ness BRT evaluation study.

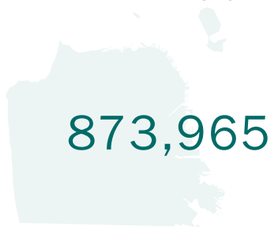
DEMOGRAPHICS AND TRIP-MAKING TRENDS

During the pandemic, the SFCTA created the COVID-Era Congestion Tracker to understand how travel patterns associated with recovery impact the transportation network. The SFCTA will continue to monitor post-pandemic travel patterns and how recovery impacts the transportation system. As the CMA, the SFCTA will also continue to monitor demographic and travel behavior trends including remote work trends, and the effect of new growth on the transportation system.

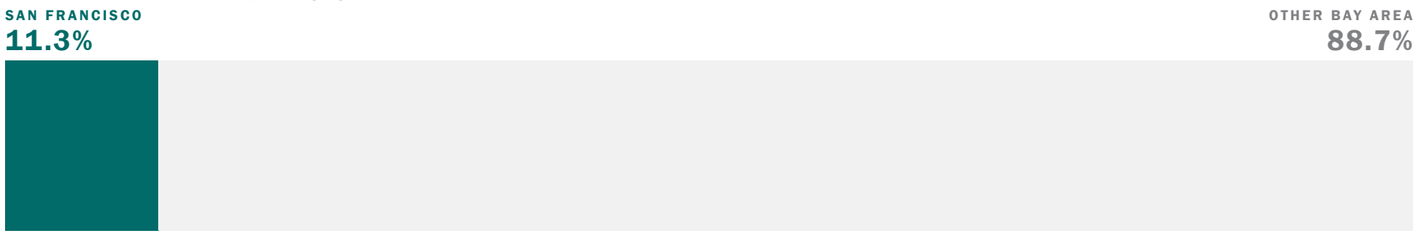
San Francisco at a Glance

POPULATION

2020 San Francisco population:



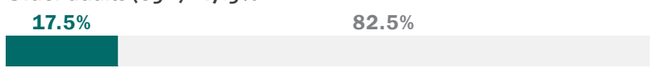
San Francisco share of regional population:



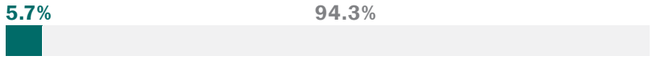
DEMOGRAPHICS

People of color

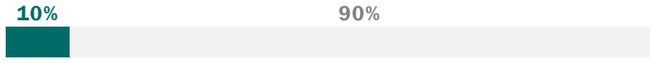
Older adults (65+) - 17.5%



People with a disability, under 65



Persons in poverty



Median household income

$119,136

Per capita income (2020 dollars, 2016 – 2020)

$72,041

2050 PROJECTED POPULATION

San Francisco population (2015)

860,066

San Francisco population (2050)

1,272,809

Regional population (2015)

7,581,396

Regional population (2050)

10,325,405

San Francisco population growth (2015 – 2050)

412,743

Regional population growth (2015 – 2050)

2,744,009

San Francisco share of regional population growth (2015 – 2050)

2050 PROJECTED JOBS

San Francisco employment (2015)

637,283

San Francisco employment (2050)

918,214

Regional employment (2015)

3,861,318

Regional employment (2050)

5,408,460

San Francisco employment growth (2015 – 2050)

280,931

Regional employment growth (2015 – 2050)

1,547,142

San Francisco share of regional employment growth (2015 – 2020)

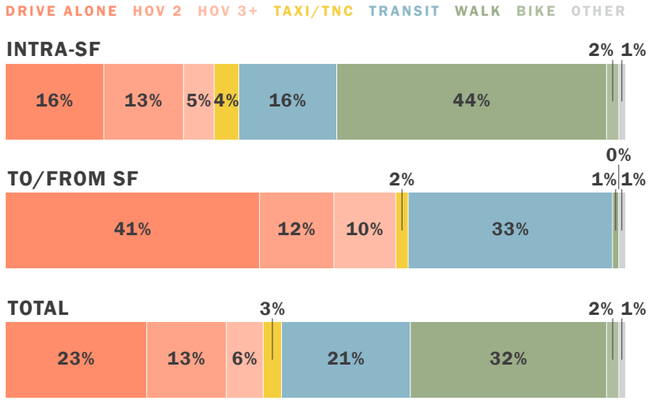
San Francisco At a Glance (continued)

TRANSPORTATION

Weekday trips to/from/within San Francisco

4,563,805

San Francisco mode share by travel market in 2019

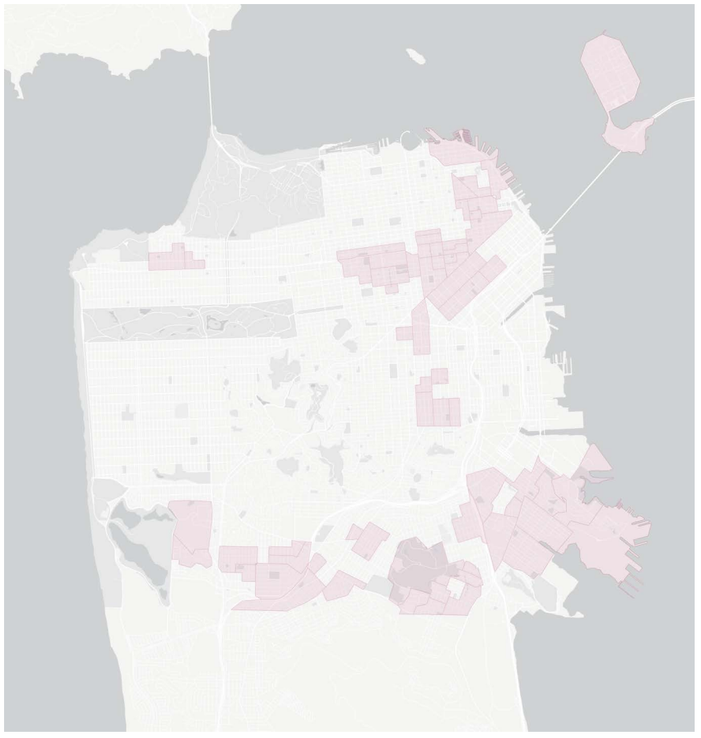


San Francisco share of regional weekday transit trips

Muni share of regional weekday low income transit trips

MAPS

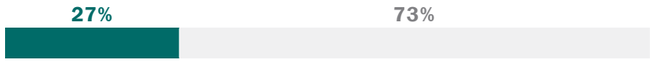
San Francisco Equity Priority Communities (EPCs)



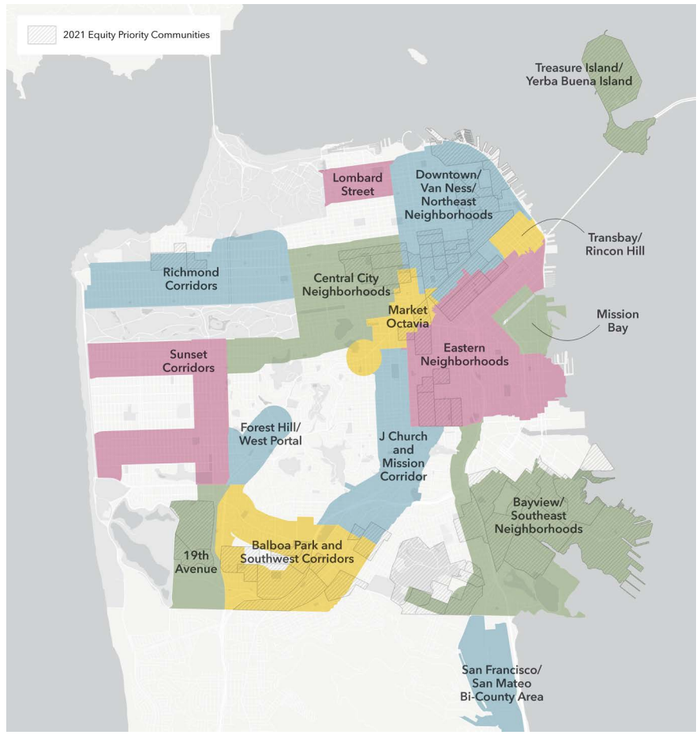
Population in EPCs

235,763

Percent of population in EPCs



San Francisco Priority Development Areas (PDAs)



Population in PDAs

708,390

Percent of population in PDAs

Sources:
Census 2020, https://www.census.gov/data.html;
Plan Bay Area 2050, https://www.planbayarea.org,
SFMTA Transit counts, https://www.sfmta.com/reports/passenger-counts;
MTC and SFCTA 2018-2019 Bay Area Transportation Study, https://mtc.ca.gov/planning/transportation/regional-transportation-studies/bay-area-transportation-study

ConnectSF

@sfcta
@sfcta
linkedin.com/company/transportation-authority
@sfcta

sfcta.org/stay-connected

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San Francisco, CA 94103
TEL 415-522-4800
EMAIL info@sfcta.org
WEB www.sfcta.org

San Francisco County Transportation Authority

SFTP 2050: APPENDIX A

SFTP 2050 Investment Plan Development Process

Introduction

The San Francisco Transportation Plan (SFTP) is an investment plan that details how available transportation funds[1] will be spent between now and 2050. This document describes how the SFTP was created based on previous long-range planning work and local and regional priorities. The SFTP includes two funding scenarios: 1) the Investment Plan scenario, which matches expected and available revenues to future investments, and 2) the Vision Plan, which demonstrates how potential new revenues could be used to further fund outstanding transportation needs.

The SFTP used the previous phases of ConnectSF, the City's long-range planning effort, as inputs into the plan's development; inputs included ConnectSF community engagement, vision, goals, the Transit Strategy, and the Streets and Freeways Strategy. In addition, the SFTP built upon ongoing community engagement, known goals and priorities including San Francisco's Climate Action Plan, Transit First Policy, community-based plans, and regional transit operating plans to develop the investment plan scenario and vision plan scenario for the SFTP.

To understand the transportation needs through 2050, a multi-agency call for projects and programs was conducted in late 2020 to inform the SFTP update and the 2022 Transportation Expenditure Plan for the existing half-cent transportation sales tax. The process allowed all transportation agencies that serve San Francisco to submit transportation capital and operating funding needs through the year 2050. The needs were grouped into categories that are consistent with the categories for the 2022 Transportation Expenditure Plan which, if passed by voters in November 2022, will help implement the SFTP.

To create the SFTP 2050 Investment Strategy, Transportation Authority staff created a revenue forecast drawing upon projections of federal, state, regional, and local funds prepared by MTC for the 2021 Plan Bay Area update (PBA 2050). Revenue projections for the SFTP 2050 cover Fiscal Years 2020-21 through 2049-50. The SFTP also considers potential new revenue sources for transportation in San Francisco, which would require voter approval or other legislative actions. These vision revenue projections are based on Transportation Authority forecasts and the SFMTA's T2050 program. These revenues fund the SFTP 2050 Investment Vision.

This document provides an overview of the SFTP Investment and Vision Plan scenario development process, documenting key inputs used to guide priorities for the investment and vision funding levels for each category – major transit projects, transit maintenance and enhancements, paratransit, streets and freeways, transportation system development and management, transit operations, and existing obligations.

1 More information on revenue sources available in Appendix B: Revenue Assumptions Table

Background: ConnectSF

The SFTP is a product of ConnectSF, San Francisco's multi-agency long-range planning process.

CONNECTSF: VISION AND STATEMENT OF NEEDS

ConnectSF Overview

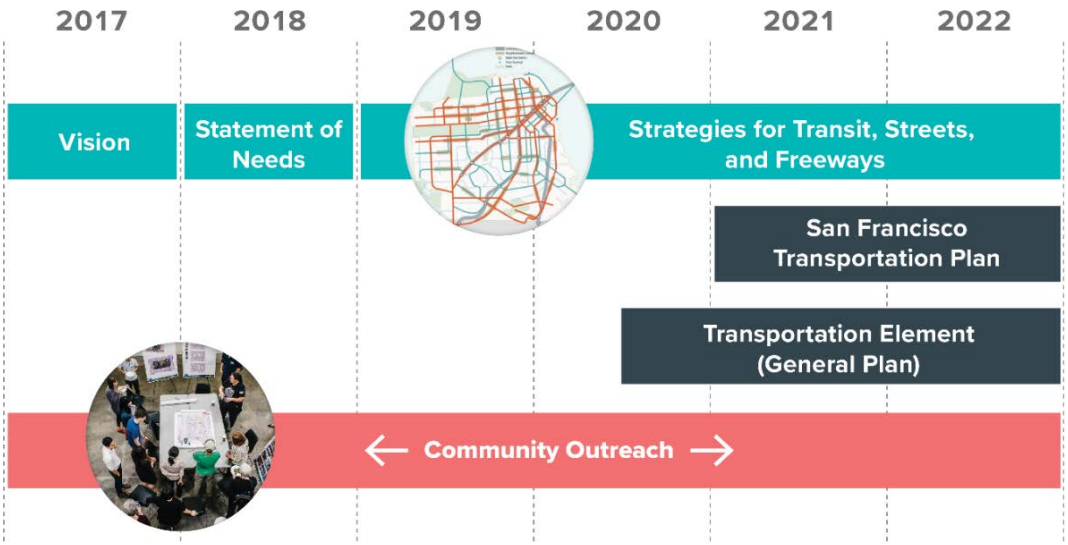
Initiated in 2016, ConnectSF is a multi-agency collaborative process to build an effective, equitable, and sustainable transportation system for San Francisco's future. The ConnectSF program was motivated by a recognition that significant transportation investments will be needed to support the city's growth over the next several decades. ConnectSF is a partnership between the Municipal Transportation Agency (SFMTA), Planning Department (SF Planning), Office of Economic and Workforce Development (OEWD), and Transportation Authority (SFCTA) to support a shared understanding of how to approach long range transportation planning in the city.

Phase 1 of ConnectSF produced a 50-year Vision for what people want to see San Francisco look and feel like, generated by discussions with the public and the ConnectSF Futures Task Force, comprised of individuals representing different perspectives of San Francisco. The Task Force was convened to engage in the development of scenarios and discussions of trade-offs for possible futures for the city.

Phase 2 of ConnectSF, which began in 2018, set out to answer what San Francisco needs to do to achieve the Vision, accounting for projected land use and travel patterns through 2050. The Statement of Needs showed that new investments and policies would be needed to meet the ConnectSF goals and was followed by two modal studies that were completed in early 2022: the Transit Corridors Study (TCS) and the Streets and Freeways Study (SFS) – both of these studies are discussed in more detail in the following sections.

The outcomes of these studies are the Transit Strategy and the Streets and Freeways Strategy. These two strategies are foundational elements in developing the SFTP 2050 and updating the Transportation Element of the San Francisco General Plan. As an element of ConnectSF, the SFTP aims to move San Francisco closer to the ConnectSF Vision and Goals by incorporating the Transit Strategy and Streets and Freeways Strategy core recommendations. Figure 1 presents a schematic timeline of all the elements of ConnectSF in the context of the SFTP development.

Figure 1: Components of ConnectSF



ConnectSF Vision and Goals

The ConnectSF process included a robust community engagement process to shape the ConnectSF Vision[1] and Goals. ConnectSF established a Vision for the city's future where:

- San Francisco is a growing, diverse, equitable city.
- There is a multitude of transportation options that are available and affordable to all.
- There is faster project delivery resulting from strong civic and government engagement.

The ConnectSF team also developed five specific goals for the future of land use and transportation in San Francisco:[2]

- **Equity.** San Francisco is an inclusive, diverse, and equitable city that offers high-quality, affordable access to desired goods, services, activities, and destinations.
- **Economic Vitality.** To support a thriving economy, people and businesses easily access key destinations for jobs and commerce in established and growing neighborhoods both within San Francisco and the region.

1 ConnectSF Vision Report, March 2018. https://connectsf.org/about/components/vision/

2 The ConnectSF Goals are described on page 7 of the ConnectSF Vision Report.

- **Environmental Sustainability.** The transportation and land use system support a healthy, resilient environment and sustainable choices for future generations.
- **Safety and Livability.** People have attractive and safe travel options that improve public health, support livable neighborhoods, and address the needs of all users.
- **Accountability and Engagement.** San Francisco agencies, the broader community, and elected officials work together to understand the City's transportation needs and deliver projects, programs, and services in a clear, concise, and timely fashion.

The SFTP scenarios ensure that investment plans advance ConnectSF Vision and Goals.

ConnectSF Statement of Needs

Following the development of the Vision and Goals, and prior to the COVID-19 pandemic, the ConnectSF team completed the Statement of Needs.[1] The Statement of Needs identified challenges that need to be addressed to realize the ConnectSF Vision, including:

- Accommodate forecasted growth
- Create equitable transportation outcomes
  - » Improve job access via sustainable modes
  - » Improve transportation connections for outer neighborhoods
- Improve sustainability and efficiency
  - » Reduce emissions by shifting more trips to sustainable modes
  - » Further expand transit capacity
  - » Manage congestion

The ConnectSF team also identified a set of major transportation corridors that would be considered in the Transit Strategy and/or the Streets and Freeways Strategy, based on the future land use and transportation needs identified through the Statement of Needs. As shown in Figure 2, the recommendations from each study, which are discussed separately in the next two sections of this document, were used to develop the SFTP.

1 ConnectSF Statement of Needs Report, December 2019. http://connectsf.org/wp-content/uploads/ConnectSF_Statement-of-Needs-Report-Final.pdf

Figure 2: SFTP Development Process

Building on the public outreach conducted during the development of the Vision and Goals, the ConnectSF team conducted stakeholder and public outreach from late 2019 through early 2020, including public events in Equity Priority Communities, Nextdoor comment threads, and online surveys in English, Spanish, Chinese, and Tagalog. Presentations were also offered to community-based organizations. The goal of the outreach was to gather robust and diverse feedback on the findings from the Statement of Needs, such as how, where, and why people travel in San Francisco and the region today and in the future. This feedback informed the project concepts developed and analyzed in both the TCS and the SFS. The key themes that emerged from the outreach included:

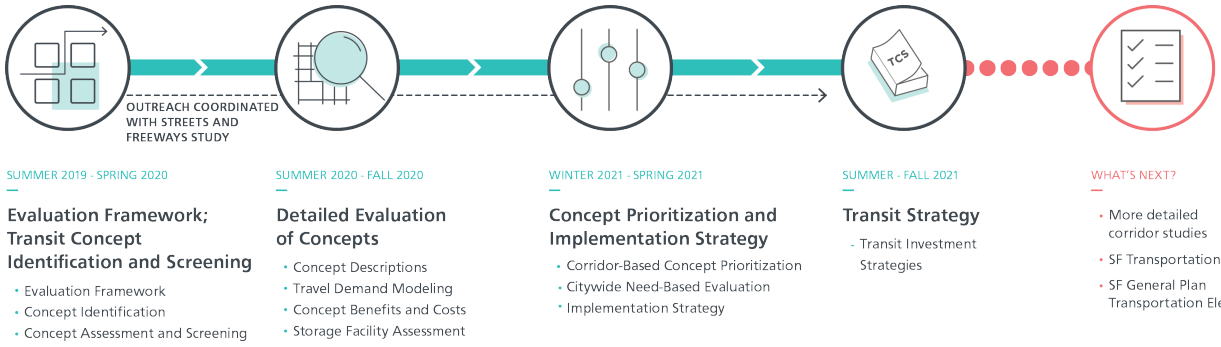
- It is relatively easy to access downtown and travel within neighborhoods via transit, biking, and/or walking.
- People find it more difficult to use transit when traveling between neighborhoods and to areas outside of downtown. The main reasons shared were that transit is often slow, unreliable, and/or infrequent and has poor connections and too many transfers. Specific geographic areas or corridors of interest for improving transit, walking, and biking connections included the North area of the city and Southwest-North/Northwest.
- Outreach participants said that convenience (proximity and frequency) was most important in deciding how they travel. Other factors cited were safety, reliability, accessibility, and affordability.
- Outreach participants want transit-related policies and investments that increase service, expand transit infrastructure, improve operations, and change fares. Improvements to active transportation were also popular.

CONNECTSF: TRANSIT CORRIDORS STUDY

Transit Corridors Study Overview

The Transit Corridors Study (TCS) developed and evaluated options for capital investments in San Francisco's public transit network through 2050. As depicted in Figure 3, the TCS included four major elements. The first three elements comprised the TCS technical evaluation, which led to the Transit Strategy, released in December 2021.[1]

Figure 3: TCS Elements and Timeline


OUTREACH COORDINATED WITH STREETS AND FREEWAYS STUDY
TCS
SUMMER 2019 - SPRING 2020
Evaluation Framework; Transit Concept Identification and Screening
• Evaluation Framework
• Concept Identification
• Concept Assessment and Screening
SUMMER 2020 - FALL 2020
Detailed Evaluation of Concepts
• Concept Descriptions
• Travel Demand Modeling
• Concept Benefits and Costs
• Storage Facility Assessment
WINTER 2021 - SPRING 2021
Concept Prioritization and Implementation Strategy
• Corridor-Based Concept Prioritization
• Citywide Need-Based Evaluation
• Implementation Strategy
SUMMER - FALL 2021
Transit Strategy
- Transit Investment Strategies
WHAT'S NEXT?
• More detailed corridor studies
• SF Transportation Plan 2050
• SF General Plan Transportation Element

TCS Goals and Priorities

The goals of the TCS were to prioritize local transit investments, identify regional transit priorities for the city, and articulate how these local and regional investments would support the ConnectSF vision and values. This included coordination with regional transit partners around relevant issues, including options for the planned Link21 second Transbay Crossing; the Downtown Rail Extension (DTX) and Pennsylvania Avenue Extension (PAX); and regional bus connections.

The TCS conducted a comparative analysis of representative transit concepts to understand the benefits that might be achieved through alternative major investments in each of the 13 ConnectSF transportation corridors.[2] The evaluation framework for this analysis was organized around 11 specific transit-focused objectives aligned with the ConnectSF Vision and Goals. Criteria and metrics were developed for each objective to capture how well each transit concept helped to achieve outcomes ranging from access and travel choices to cost-effectiveness and reliability. In addition to analyzing the transit concepts that had been proposed in formally defined ConnectSF corridors, the TCS also included consideration of citywide Muni bus and rail network reliability and efficiency improvements (similar to Muni Forward) that could be implemented in the shorter-term.

1 ConnectSF Transit Strategy, December 2021. https://connectsf.org/transit-strategy/

2 Concepts were intended to direct the commencement of corridor planning studies, rather than as formal project proposals; significant additional planning work and public engagement would be needed to define the details of any capital project advanced as a recommendation.

TCS Public Engagement

The ConnectSF team conducted public outreach in Spring 2021 to publicize and obtain input on proposed Transit Strategy initiatives. The outreach effort was modified due to COVID related restrictions on public meetings. Outreach included a Story Map (see https://arcg.is/1vz5G) – a web-based narrative format that illustrates content using text, maps, photos, and interactive elements – that summarized proposed investments being considered for the Transit Strategy. The Story Map was publicized through partnerships with community-based organizations (CBOs), an online town hall/webinar, and digital ads across multiple online platforms, and residents were encouraged to respond to the accompanying survey about their transit investment priorities. The following preferences expressed by people who responded to the survey are relevant to the SFTP:[1]

- **Cost-effective improvements to prioritize buses:** Over 40% of respondents ranked it as their first choice, and nearly 30% ranked it as their second choice.
- **Improvements to the light rail system:** Although only 20% of respondents ranked it as their first choice, over 50% ranked it as their second choice.
- **Major rail investments with a 10+ year horizon:** Nearly 40% of respondents ranked it as their first choice, and over 20% ranked it as their second choice.

Respondents cited "I want San Francisco to invest in major transit projects that will have the greatest impacts" and "I want to bring improvements to our transit system as fast as possible" as the primary reasons why they preferred more immediate improvements. The TCS also analyzed survey responses from specific demographic groups to better understand the preferences of populations who were underrepresented in the survey. This analysis supplemental available in the TCS Outreach Report.[2]

Study Outcomes – The Transit Strategy

The significant changes in San Francisco's transportation landscape during the pandemic highlighted the need to ensure that transit service works well for those who use it the most. The TCS evaluation demonstrated that, in most corridors, bus improvements can provide enough capacity and frequency to meet future travel demand, particularly if investments are focused on accelerating the renewal of existing capital assets and creating a focused high-frequency network. Modernizing the rail system to support key service improvements was the third citywide approach identified as a major investment priority. However, the analysis also showed that several corridors

1 Survey did not include a scientific sample

2 https://connectsf.org/wp-content/uploads/TCS_Outreach-Report_Final.pdf

will not be able to serve future community needs with bus-based projects alone; they require a major rail investment to build enough capacity to support future growth. The corresponding rail concepts for these corridors were selected as key priorities for major capital projects over the next few decades.

The overall recommendations that emerged from the TCS were synthesized into the ConnectSF Transit Strategy, which identifies both the long-term transit capital investment priorities for the city along with lower-cost projects that can deliver benefits sooner. The Transit Strategy's recommendations are organized into the following four major elements, all of which shaped investment priorities for the SFTP:

- **Make the System Work Better.** This element focuses on rehabilitation and replacement to clear the SFMTA's capital backlog and make the transit system more reliable. This is a systemwide effort to accelerate capital renewals, while each of the other three elements of the Transit Strategy propose improvements that are relevant to different subsets of the local or regional concepts that were studied in the TCS. The element also includes strategic service restoration throughout the city. An equity analysis of the 2021 service changes showed that modest improvements in travel time led to triple-digit increases in job access from some neighborhoods, reinforcing the importance of transit service to the city's post-pandemic recovery.
- **Deliver a Five-Minute Network.** This element includes street improvements that would support a citywide network of frequent, reliable bus and rail routes running every five minutes to provide quick, convenient access to all parts of San Francisco, including commercial districts, jobs, and housing. Many of the transit priority, street safety, and accessibility improvements would be implemented through existing programs such as Muni Forward. The future network would include express routes and a network of high-occupancy vehicle (HOV) lanes that would increase the speed and reliability of both local and regional transit services. These improvements could reduce crowding on the system to less than 5% of all transit trips.
- **Renew and Modernize our Rail System.** This element focuses on comprehensive upgrades and potential network reconfiguration to optimize the rail network, alleviate delays in the subway, improve reliability systemwide, and address crowding. Investments would include a new Muni train control system and improvements to individual lines that would enable longer trains and consistent, predictable service. These changes would allow the existing rail system to carry up to 30% more people. The strategy also supports regional rail upgrade programs including the BART Transbay Corridor Core Capacity Program, Caltrain Modernization Program, and Caltrain 2040 Business Plan.

- **Build More Rail.** This element focuses on major capital projects in transportation corridors where additional capacity and connectivity are most needed, including the Geary/19th Avenue Subway, extension of the Central Subway to Fisherman's Wharf, and a new Caltrain station to restore regional rail access to the Bayview. These larger corridor investments will require multi-year planning efforts and include regional rail extensions that were already being planned concurrent with the TCS, such as the Downtown Rail Extension (DTX) and Pennsylvania Avenue Extension (PAX).

Figure 4 provides a high-level summary of four key elements of the Transit Strategy.

Figure 4: Summary of TCS Recommendations

1
Make the System Work Better
with aggressive renewal and restoration
• Tackle the capital backlog
• Restore service equitably
2
Deliver a Five-Minute Network
with reliable service every five minutes on key bus and rail lines
• Implement transit priority, street safety, and accessibility improvements
• Support regional transit connections
3
Renew and Modernize our Rail System
with increased speed, reliability, and capacity
• Implement Muni Subway Renewal Program
• Improve Muni Metro reliability on the surface
• Support BART and Caltrain upgrade programs
4
Build More Rail
to San Francisco's busiest places
• Add new rail in the Geary / 19th Avenue corridors
• Extend Central Subway to Fisherman's Wharf
• Add a new Bayview Caltrain station, and complete the Downtown Rail Extension (DTX) and Pennsylvania Avenue Extension (PAX)
• Collaborate on regional study of a new Transbay Rail Crossing (Link21)

CONNECTSF: STREETS AND FREEWAYS STUDY

Streets and Freeways Study Overview

The Streets and Freeways Study (SFS) is the first comprehensive planning effort for San Francisco's Streets and Freeway network. This foundational work built on San Francisco's Transit First and Vision Zero policies, Racial Equity framework, and Climate Action Plan. Multiple concepts were developed and analyzed as part of the SFS. Concepts do not identify specific projects but are intended to guide future planning efforts.

SFS Goals and Priorities

The SFS seeks to support the overall ConnectSF goals by identifying the investments that are needed to make sure that infrastructure is maintained, low-carbon modes are accessible, safe, and reliable to use, and goods can easily be moved and delivered across the city. The SFS identified three key challenges that would shape the development of strategies to achieve these outcomes:

- **Street space in San Francisco is limited.** Strategies need to move more people and goods through the street space we have today.
- **Past investments have frequently had unintended negative outcomes,** such as divided communities, poor air quality, and safety challenges. Strategies should address these issues as a first priority.
- **The world is in a climate crisis.** San Francisco needs to make transit, carpooling, walking, and biking more convenient for more people to achieve its goal of net zero emissions by 2040.

The SFS identified five strategies to address these challenges and advance the ConnectSF Vision and goals:

- **Maintain and reinvest** in the current transportation system
- **Prioritize transit and carpooling** on our streets and freeways
- **Build a complete network** for walking and biking
- **Prioritize safety** in all investments and through targeted programs
- **Repair harms and reconnect** communities

SFS Public Engagement

The ConnectSF team conducted public outreach in Summer 2021 to publicize and obtain input on proposed Streets and Freeways Strategy recommendations. The outreach effort featured an online survey that summarized proposed recommendations considered for the Streets and Freeways Strategy and asked participants to prioritize various tools to advance each recommendation. The survey was publicized through partnerships with community-based organizations (CBOs), an online town hall/webinar,

and digital ads across multiple online platforms. Survey respondents expressed the following preferences.[1]

Build a complete active network: About 70% of respondents ranked the three tools – reducing speed limits and creating more space on neighborhood streets; separated, high quality bike network; and walk and bike connections to transit – as important. There was a slight preference for improving walk and bike connections to transit.

Dedicate space for efficient travel options: The top three tools were ranked as important by about 50% of respondents; they are: rewards and discounts for using transit, traffic calming on local streets to minimize cut-through traffic, and manage curbs to reduce double parking.

Street safety: The top three tools were ranked as important by about 50% of respondents; they are: traffic calming, more dedicated space to walk and bike, and reduce speed limits. Advocating for authority to use speed safety cameras was ranked as important by 40% of respondents.

Major road transformations to major roads and freeways: Each of the three tools – reconnect communities that have experienced harms from the past investments, complete streets, and pairing freeway re-designs with land use plans and policies to support development and avoid displacement – were ranked as important by more than 70% of respondents. Complete streets was ranked important most frequently (50% of respondents).

Study Outcomes – The Streets and Freeways Strategy

The high-level concepts included in the Streets and Freeways Strategy are intended to guide future planning efforts, and would require additional planning, community engagement, and technical analysis. The concepts were organized based on four project types, all of which are reflected in the SFTP:

- **Maintenance and Resilience.** This element includes concepts to help prepare the city's transportation infrastructure for the risks of climate change.
- **Transit and HOV Priority.** This element prioritizes street space for transit and high-occupancy modes and improve traffic management.
- **Safety and Active Transportation Network.** This element includes concepts that expand the bike and walking network and improve street safety for the most vulnerable road users.

1 Survey did not include a scientific sample

- **Reconnect Communities.** This element includes medium-term and long-term concepts to redesign infrastructure, create more complete streets, and integrate transportation and land use planning.

Partner Plans

The SFTP 2050 aligns with partner agency plans. Since the last SFTP update in 2017, partner agencies have conducted two key studies outside of the ConnectSF work program that identify the need and priority for transportation projects in San Francisco. Figure 5 provides an overview of these plans and how they were used to inform the SFTP. The following sections discuss these plans, focusing on the goals and priorities, public engagement priorities (if applicable), and outcomes of each plan that informed the SFTP Investment and Vision Plan scenarios.

Figure 5: How Partner Plans Informed the SFTP

PARTNER PLAN	HOW IT INFORMED THE SFTP
Plan Bay Area 2050	Modeling, revenue forecasts, Equity Priority Communities
Climate Action Plan	Climate goals

The SFTP also aligns with and carries out San Francisco's Transit First Policy, adopted in 1973. The policy calls for prioritizing transit, walking and biking over private automobiles and outlines a set of Transit-First principles to guide decision-making. The principles support long-range transportation goals that are further advanced by the SFTP, such as mode shift, clean air, and equity.

PLAN BAY AREA 2050

Plan Bay Area Overview

Plan Bay Area (PBA) is the regional long-range plan that connects four key elements of Bay Area planning: housing, economy, transportation, and environment. The plan covers a 30-year horizon and provides a roadmap to meet projected household and employment growth in the nine-county San Francisco Bay Area. The regional governing bodies, Metropolitan Transportation Commission (MTC) and Associated Bay Area Governments (ABAG) work to carry out the planning process. The plan is a coordinated effort across agencies and stakeholders within the region to align goals and guide future planning and growth. Key inputs from PBA that shaped the SFTP investment priorities included future growth, revenue forecasts, and the Equity Priority Communities (EPC) framework.

PBA 2050[1] was adopted in October 2021. The $1.4 trillion plan provides 35 regional strategies to invest in an equitable and resilient Bay Area. PBA does not fund specific transportation projects, nor does it change local land use policy; it is the regional long-range plan that provides a guide for the region in identifying shared goals and potential strategies. PBA satisfies the federal government's requirement to develop a Long-Range Transportation Plan (LRTP) for urban areas with a population greater than 50,000. The plan also complies with California Senate Bill 375, which requires regions to complete a Sustainable Communities Strategy (SCS) as part of the RTP. The SCS is a plan that integrates transportation, land use, and housing to meet per-capita greenhouse gas reduction targets set by the California Air Resources Board (CARB).

Public input and community engagement shaped the PBA 2050 process. In total, over 450 public stakeholder events and activities were held with a total of 234,000 public comments. MTC and ABAG were intentional with their outreach – using the established Equity Framework to guide the engagement process. As a result, two-thirds of events and activities were targeted toward EPCs and other underserved populations. The input given during the engagement process led to the guiding principles which MTC and ABAG then used to identify potential projects and policies. Community input was then gathered to further expand and refine the identified strategies. The results led to a final set of 35 policies that integrate one or more guiding principles and address community concerns.

Study Outcomes

PBA 2050 identified 35 strategies to improve Bay Area quality of life, including 12 long-range transportation strategies. The transportation strategies fall under three larger themes, all of which strongly align with the ConnectSF recommendations (discussed in the following sections) and were foundational to the development of the SFTP. The themes were:

- **Maintain and optimize the existing transportation system** through maintenance and increased investment and policy action. These strategies include addressing pandemic-related cuts to transit service and funding, congestion relief, and community-led investments in EPCs.
- **Create healthy and safe streets** by encouraging a balanced, multi-modal network and reducing speed limits in appropriate areas, expanding the existing bike lane network, and promoting Vision Zero safety policy.

1 https://www.planbayarea.org/

- **Build a next-generation transit network** by prioritizing transit investments that meet the growing demand for travel throughout the region.

The transportation investments proposed by PBA 2050 are estimated to cost $578 billion.

CLIMATE ACTION PLAN

Climate Action Plan Overview

In December 2021, the City of San Francisco released the Climate Action Plan (CAP) calling for net-zero emissions by 2040.[1] The CAP builds on an established foundation of climate policy, as San Francisco has long been a leader in the region and the United States. The City's first CAP was published in 2004, and the city has since continued to prioritize environmental sustainability. Figure 6 presents and overview of San Francisco's climate policy milestones over the last two decades.

The CAP 2040 builds upon previous actions and research while using a data-driven approach to environmental planning. The plan was led by the San Francisco Department of Environment with collaborative efforts from other city departments including SFCTA, San Francisco Planning, SFMTA, the Office of Racial Equity, and the Public Utilities Commission. The recommendations put forth in the CAP shaped the climate goals of the SFTP and, as a result, the SFTP advances many of the CAP strategies.

Figure 6: San Francisco Climate Policy Milestones

YEAR	MILESTONE
2004	San Francisco's First Climate Action Plan
2013	San Francisco's updated Climate Action Plan
2015	0-50-100 Roots Climate Action Framework Launched
2016	Emissions Reduced by 30% Below 1990 Levels
2017	50% Low Carbon Trips Achieved — New Goals Set to 80%
2018	Mayor Breed Committs to Net-Zero Emissions by 2050
2019	San Francisco Board of Supervisors Declares a Climate Emergency
2019	100% Renewable Electricity Requirement for Large Commercial Buildings
2019	Emissions Reduced by 41% Below 1990 Levels (6 years ahead of schedule)
2020	Natural Gas Banned in New Construction
2021	Mayor Breed Advances Updates to Climate Action Goals in Chapter 9 of the Environment Code, Commits to Net-Zero Emissions by 2040, San Francisco Board of Supervisors Approves

Source: San Francisco Climate Action Plan, 2021.

1 https://sfenvironment.org/climateplan

CAP Goals and Priorities

The CAP prioritizes emission reduction to meet net-zero goals while also recognizing that Black, Indigenous, and People of Color, people with disabilities, and other underserved populations should be prioritized in the process. The plan makes the following four core commitments to advance climate justice: 1) build greater racial and social equity, 2) protect public health, 3) increase community resilience, and 4) foster a more just economy. The CAP identifies several Climate Action Goals to guide the process of identifying strategies and priorities, including specific **transportation** goals:

- By 2030, increase low-carbon trips to at least 80% of all trips and increase electric vehicles (EVs) to at least 25% of all private vehicles registered
- By 2040, increase EVs to 100% of all private vehicles registered

Additional Climate Action Goals included:

- **Buildings:** By 2021, require zero onsite fossil fuel emissions from all new buildings; By 2035, require zero onsite fossil fuel emissions from all large existing commercial buildings and all buildings by 2040
- **Clean Energy:** By 2025, supply 100% renewable electricity, and by 2040, supply 100% renewable energy
- **Zero Waste:** By 2030, reduce solid waste generation by at least 15% and reduce the amount of solid waste disposed of by incineration or landfill by at least 50% below 2015 levels
- **Housing:** Build at least 5,000 new housing units per year with maximum affordability, including no less than 30% affordable units, and with an emphasis on retaining and rehabilitating existing housing
- **Roots:** Sequester carbon through ecosystem restoration, including increased urban tree canopy, green infrastructure, and compost application
- **Housing:** Build at least 5,000 new housing units per year with maximum affordability, including not less than 30% affordable units, and with an emphasis on retaining and rehabilitating existing housing

The CAP goes beyond the reduction of emissions and includes actions that advance equity by addressing disparities by race, class, and other social determinants. Racial and Social Equity are one lens that the CAP uses to analyze and put forth solutions to the Bay Area's climate problems, recognizing that Bay Area BIPOC stand to be the most affected by climate pressures while simultaneously being the least responsible for causing climate change. Other lenses used are Economic Recovery and Just Transition,

Protecting Public Health, and Resilience. All 5 lenses were used to identify critical issues and shape proposed strategies for future implementation.

CAP Outcomes

The CAP identifies 31 strategies and 159 supporting actions for San Francisco to achieve its climate and equity goals across sectors. Many of the strategies are reflective of ConnectSF recommendations, and the SFTP further advances the goal of achieving zero emissions through these efforts. The CAP includes seven transportation and land use strategies:

- Build a fast and reliable transit system that will be everyone's preferred way to get around.
- Create a complete and connected active transportation network that shifts trips from automobiles to walking, biking, and other active transportation modes.
- Develop pricing and financing of mobility that reflects the carbon cost and efficiency of different modes and projects and correct for inequities of past investments and priorities.
- Manage parking resources more efficiently.
- Promote job growth, housing, and other development along transit corridors.
- Strengthen and reconnect communities by increasing density, diversity of land uses, and location efficiency.
- Where motor vehicle use or travel is necessary, accelerate the adoption of zero-emissions vehicles (ZEV's) and other electric mobility options.

According to San Francisco's GHG inventory on which the CAP is based, transportation accounts for 47% of the City's emissions. The transportation sector has seen a 19% decrease in emissions since 2019, when the CAP was first introduced.

Public Input on Investment Priorities

To inform the SFTP planning process, the SFCTA engaged with communities, with a focus on Equity Priority Communities (EPCs), to gather input on their priorities for transportation investments. The team used a combination of three outreach methods to connect with the community: an online, multilingual survey, community conversations, and a public Town Hall.

Key findings from outreach that informed SFTP investment priorities include the following:

- Transit investments were a clear priority for participants; many highlighted their preference to prioritize transit service expansion, increase reliability, and restore service to previous levels and previously existing lines.
- Equity and affordability were a key concern amongst participants, many of whom mentioned they would like to see improved affordability across all modes to reduce barriers for low-income residents.
- Although not the highest priority for funding, many participants mentioned that they would like to see investments in safety and active transportation projects.
- Perceived physical safety was a concern for many participants, noting that interventions such as pedestrian scale lighting and traffic enforcement would promote a greater sense of safety and encourage non-vehicular travel.
- Participants also mentioned that they would like to see new major rail projects and a more integrated transit system that connects to other transit systems across the region, such as BART and Caltrain.
- Transformative freeway projects, while presented as an option in the survey, were found to be the lowest priority for many participants and stakeholders despite there being previous interest in freeway removals and other projects that reduce vehicle capacity.
- The importance of project delivery and accountability was also mentioned by stakeholders; they would like a more transparent approach to communicating project impact, potential mitigation efforts, and return on investment.

Current Transit Conditions in San Francisco

Another key consideration for the SFTP is the capacity for transit revenues to maintain service. The SFTP considers the current condition of revenues needed to maintain transit service and capital investments in system maintenance.

For SFMTA, problems resulting from deferred capital investments disproportionately affect people who depend on transit, as recognized by a sizable majority of people who identified repairs and maintenance as high priorities in the SFMTA's 2021 customer

satisfaction survey.[1] A portion of the SFMTA's roughly $500 million annual capital budget goes toward maintaining or replacing capital infrastructure.[2] For example, over the past decade the City has invested in maintaining Muni's vehicle fleet to make buses and trains more reliable, including replacing outdated vehicles with new ones. Strengthening the City's transit system must continue with repairing and replacing heavily used infrastructure while addressing the multi-year backlog of maintenance work, such as replacing the Muni Metro train control system and rebuilding Muni's bus yards, which are too small to accommodate the current fleet and do not meet current seismic safety standards. The current capital renewal backlog (infrastructure assets that are past their useful life) is $3.8 billion, a figure that will continue to grow unless additional resources are directed towards strengthening the City's transit system.[3]

Even prior to the pandemic, the SFMTA had a growing budget deficit. Revenues from fares and parking that fund the City's transportation system did not cover ongoing expenses for transit service, infrastructure maintenance, and safety improvements for people walking and biking. These deficits were plugged by reserves and one-time sources. COVID-19 only exacerbated long-standing and growing structural deficits when it caused a steep drop in Muni revenue from parking and fares. Federal pandemic relief funds helped fill the gap but will run out in 2025. Moving forward, recovery in economic growth along with additional revenue sources will be needed to support continued restoration of Muni service levels and continued investments in making the City's transit system resilient, reliable, and financially sustainable in the long-term.

Regional rail operators (BART and Caltrain) also reduced service early in the Pandemic to match employee availability. Reduced service also reduced operational expenses as decreased demand lowered the agencies' fare revenues, though not nearly enough to offset the loss in revenue. For some agencies, reduced service reduced operational expenses, though the cost per-service-hour often increased with additional cleaning procedures and capacity restrictions to help fight the spread of COVID-19. As the region began to recover, service on some regional systems was restored close to pre-pandemic levels, despite reduced ridership. This has created more funding shortfalls because ridership on regional services has been slower to recover, while the systems have high fixed costs to operate.

1 https://www.sfmta.com/blog/muni-customer-satisfaction-survey

2 SFMTA Capital Improvement Program, Fiscal Year 2021-2025. See p. 5 (Capital Program Overview).

3 SFMTA Annual State of Good Repair Report, 2020. See p. 23 (Reported Asset Backlog).

Investment Priorities

Based on the outcomes of prior ConnectSF phases, recent partner plans, and SFTP outreach, the SFCTA identified the following priorities for the Investment Plan:

- Invest to maintain pavement, transit assets, and prepare for resilience by keeping roads, sidewalks, signs, signals and bikelanes in overall good condition and reducing the maintenance backlog for local and regional transit to improve transit reliability.
- Invest to improve transit reliability and efficiency, particularly on the busiest lines
- Invest in core capacity and rail modernization to allow for more frequent Muni and BART train service
- Invest in street safety improvements across the city
- Invest in the walking and bike network to close gaps in the network and improve connections to transit

The priorities will be further advanced by the Vision Plan. Based on the outcomes of recent partner plans and SFTP outreach, the SFCTA identified the following priorities for the Vision Plan:

- Increase funding levels for Muni to meet or exceed pre-pandemic levels
- Support transit reliability and metro modernization by focusing on state of good repair
- Invest in street safety for all travelers
- Advance the next generation of transportation projects to make new rail capacity and reconnect communities and repair past harms of past investments in our major roads and freeways

Concept Development Process

INVESTMENT PLAN

The majority (about 85%) of the of the revenues for the SFTP are committed, which means they are already dedicated to certain projects or have a narrow set of eligible uses. The discretionary revenues in the plan (about $13B in the Investment Plan scenario) have more flexibility for how they can be allocated. The priorities defined in the above section were used to guide how discretionary revenues were allocated. Considerations about the current transit system were also used in this decision-making process, specifically (1) that

the available revenues can only support SFMTA transit operations at 2022 service levels until 2025 and (2) that SFMTA has expressed a significant maintenance backlog that puts providing consistent and reliable long-term service at risk.

SCENARIOS

Within the discretionary revenue, there is about $3 billion that have enough flexibility to go towards transit operations or maintenance. Three alternatives were assessed (described below) to understand the tradeoffs of allocating the approximately $3 billion in revenues in different ways.

1. **Investing in all modes:** this alternative allocated revenue to maintain 2022 Muni service levels, reduce the funding gap for Muni state of good repair to about 42%, maintain the citywide goal for an overall street condition of PCI score 75[1], advance street safety projects, begin planning for next generation transportation projects, and programs to support a shift to more trips made by sustainable modes.
2. **Focus on Muni Operations:** this alternative fully put the revenues towards Muni operations and resulted in maintaining current (2022) service levels and an additional 5% increase in the operations budget. Because all this money was put towards operations in this scenario, the funding gap for Muni state of good repair increases to 45%, a PCI score of 75 cannot be met, and additional funding for street safety, planning for next generation transit projects, and mode shift programs cannot be allocated.
3. **Focus on Muni state of good repair:** this alternative fully put the revenues toward Muni state of good repair and resulted in a reduced funding gap for Muni state of good repair to 33%. In this alternative, 2022 Muni service levels are maintained, a PCI score of 75 cannot be met, and additional funding for street safety, planning for next generation transit projects, and mode shift programs cannot be allocated.

Based on public priorities voiced through outreach, the project team determined that scenario 1 was best suited for advancement, as it prioritizes transit as well as other community priorities and advances more of the 5 ConnectSF goals.

VISION PLAN

The Vision Plan assumes multiple potential new revenue sources, totaling about $15 billion. The majority of revenues ($8.5 billion) is assumed to come from San Francisco's share of a new regional measure and other local sources. These

1 PCI is a Pavement Condition Index, which considers the overall condition of all San Francisco streets.

revenues are allocated based on the priorities outlined in the previous section, with a specific goal to increase transit service investment levels beyond pre-pandemic conditions and further improve street safety.

SFMTA's T2050 plan makes up $6.7 billion of the vision revenues.[1] The SFTP allocates this portion of the vision revenue to reflect SFMTA's stated uses of this revenue – about half to transit operations, about half to transit maintenance, and a portion towards the Safe Routes to School program[2].

Investment and Vision Plans

Figure 7 below, includes the SFTP Investment and Vision Plan funding levels for identified projects and programs; all costs are shown in billions of dollars (2020). The needs are organized by overarching categories and subcategories, which align with the 2022 Transportation Expenditure Plan[3]. The Investment Level column describes the extent to which the SFTP Investment Plan funds San Francisco's need. For programs which receive additional funds in the Vision Plan, the additional benefit is described. The Resilience Co-Benefit column notes projects or programs that would include improvements to address the risks of climate change – sea level rise, earthquakes, or other natural risks.

About $2 billion of the new local/regional discretionary revenue in the Vision Plan is set aside as a placeholder for transit operations / transit capital investments. This allows flexibility for this future new revenue to be put towards transit operations to further increase service levels, toward transit capital maintenance and rehabilitation, and/or to capital projects to further expand bus or rail in San Francisco. The SFCTA will continue to work closely with local and the regional stakeholders to identify which new revenue sources to pursue and when and how to best allocate the resources.

1 https://www.sfmta.com/projects/transportation-2050

2 https://www.sfmta.com/sfmta-school-safety-programs

3 https://www.sfcta.org/ExpenditurePlan

Figure 7: SFTP 2050 Investment Plan and Vision Plan Funding Levels

PROGRAM	INVESTMENT LEVEL	NEED ($B, 2020)	INVESTMENT PLAN ($B, 2020)	VISION PLAN ($B, 2020)	RESILIENCE CO-BENEFIT
Major Transit Projects					
Muni Reliability and Efficiency Capital Improvements Transit reliability improvements (e.g Muni Forward, transit only lanes, transit signal priority, etc.)	**Investment:** Fully funds transit priority improvements on major transit lines	$1.09	$1.09	$1.09	
Muni Rail Core Capacity Includes train control, light rail vehicle feel expansion, 3-car trains in the Muni Metro Tunnel and on the N Judah, Muni Metro subway enhancements, and Muni Facility Expansion	**Investment:** Fully funds all needs, except for the expansion of new Muni Facilities	$0.82	$0.72	$0.72	X
BART Core Capacity San Francisco's share of costs for more BART train cars and system improvements to run more trains	**Investment:** Fully funds need for San Francisco's share	$3.54	$3.54	$3.54	
Caltrain Enhanced Service: Capital Capacity Improvements Increase Caltrain service from 6 to 8 trains per hour	**Investment:** Does not fund need	$1.21	$0	$0	
Caltrain Downtown Extension Extension for Caltrain and future High-Speed Rail from 4th and King to Salesforce Transit Center	**Investment:** Fully funds need	$5.00	$5.00	$5.00	
Pennsylvania Alignment (PAX) underground alignment for Caltrain and future High Speed Rail to 4th and King station	**Investment:** Funds design phase **Vision:** Additional investment to be used for leveraging to fully fund need	$2.50	$.04	*	X
Transit Maintenance & Enhancements					
Transit Maintenance, Rehabilitation and Replacement					
Muni Vehicles Maintenance, Rehabilitation and Replacement Maintains Muni vehicles for 30 years	**Investment:** Funds 70% of need **Vision:** Increases funding to reach approximately 85% of need	$7.06	$4.95	$5.95*	X
Muni Facilities Maintenance, Rehabilitation and Replacement Maintains Muni facilities for 30 years	**Investment:** Funds approximately 25% of need **Vision:** Increases funding to approximately 70% of need	$4.66	$1.09	$3.35*	X
Muni Guideways Maintenance, Rehabilitation and Replacement Maintains Muni guideways for 30 years	**Investment:** Funds approximately 85% of need **Vision:** Increases funding to approximately 90% of need	$2.55	$2.18	$2.31*	X
BART Maintenance, Rehabilitation and Replacement — San Francisco Share Maintains BART system for 30 years	**Investment:** Funds approximately 10% of need **Vision:** Increases funding to approximately 40% of need	$5.59	$0.61	$2.15	X
Caltrain Maintenance, Rehabilitation and Replacement — San Francisco Share Maintains Caltrain system for 30 years	**Investment:** Funds approximately 60% of need **Vision:** Increases funding to approximately 65% of need	$0.96	$0.55	$0.60	X
Ferry Maintenance, Rehabilitation and Replacement — San Francisco Share Maintains ferry system for 30 years	**Investment:** Funds approximately 40% of need and maintains landside assets	$0.04	$0.01	$0.01	X

PROGRAM	INVESTMENT LEVEL	NEED ($B, 2020)	INVESTMENT PLAN ($B, 2020)	VISION PLAN ($B, 2020)	RESILIENCE CO-BENEFIT
Transit Enhancements					
Southeast Waterfront Transportation Improvements — Capital Improvements Multimodal path and transit service provisions	**Investment:** Fully funds city transportation commitments for multimodal path and transit service; assumes developer fees.	$0.64	$0.64	$0.64	
F-Line Extension Extends Muni F-Line to Fishermans Warf	**Investment:** Fully funds F-line extension; assumes outside funding.	$0.10	$0.10	$0.10	
Additional Muni Motor Coaches Up to 110 new Muni buses	**Investment:** Funds approximately 65% of need	$0.23	$0.16	$0.16	
Other Transit Improvements Improvements to transit facilities (e.g. elevator upgrades, accessibility, etc.)	**Investment:** Funds approximately 23% of need	$0.61	$0.14	$0.14	
BART Station Access, Safety and Capacity — San Francisco Share Improvement to BART stations related to customer experience and accommodating more passengers	**Investment:** Funds street level improvements between BART and Muni system	$0.71	$0.11	$0.11	
Bayview Caltrain Station New Caltrain station in the Bayview station to restore service	**Investment:** Fully funds a new station in the Bayview; cost assumes the Oakdale location	$0.10	$0.10	$0.10	
Mission Bay Ferry Landing Mission Bay ferry terminal for regional service	**Investment:** Fully funds need	$0.06	$0.06	$0.06	X
Next Generation Transit Investments Major transit projects to improve connections within the city and to the region (e.g. central subway extension, Geary/19th Ave Rail, Link 21)[1]	**Investment:** Funds initial planning phases for project development **Vision:** Additional investments for project advancement and funding that could be used for implementation of one mid-size transit extension or put towards a larger project	$3.95	$0.18	*	
Regional and Local Express Bus — Capital Investments New buses for expanded express bus	**Investment:** Funds approximately 10% of need	$0.12	$0.01	$0.01	
Paratransit					
SFMTA Paratransit Operations Paratransit door-to-door van, taxi, and other transportation services for seniors and people with disabilities who are unable to use fixed route transit service	**Investment:** Fully funds need	$1.27	$1.27	$1.27	

1 A large portion of need is not shown because these next generation transit projects are being developed and costs are unknown. Costs are currently estimated to be about $50B.

PROGRAM	INVESTMENT LEVEL	NEED ($B, 2020)	INVESTMENT PLAN ($B, 2020)	VISION PLAN ($B, 2020)	RESILIENCE CO-BENEFIT
Streets and Freeways					
Maintenance, Rehabilitation, and Replacement					
Street Resurfacing, Rehabilitation and Maintenance Maintains San Francisco's streets, sidewalks, and bike lanes for 30 years	**Investment:** Maintains current overall current condition, consistent with City Capital Plan (PCI score 75)[1]	$2.45	$2.45	$2.45	X
Increased Street Resurfacing, Rehabilitation and Maintenance Additional cost to further improve conditions of San Francisco's streets, sidewalks, and bike lanes for 30 years	**Investment:** Does not fund need	$4.37	$0	$0	
Signs and Signals Maintenance and Rehabilitation Upgrades San Francisco's signs and signals for 30 years	**Investment:** Funds approximately 12% of need **Vision:** Increases funding to approximately 50%	$1.69	$0.20	$0.85	
Pedestrian and Bicycle Facilities Maintenance Supports maintenance of paint, soft hit posts, and sidewalks	**Investment:** Funds approximately 50% of need	$0.25	$0.14	$0.14	X
Safe and Complete Streets					
Priority Active Transportation Network Improvements including closing gaps, expanding networks, and establishing mobility hubs	**Investment:** Funds 87 miles of improvements as defined in the ConnectSF Streets and Freeways Strategy[2]	$0.28	$0.28	$0.28	
Bicycle Improvements Planning, design, implementation for additional 120 miles of the active transportation network	**Investment:** Funds approximately 50% of need	$0.55	$0.28	$0.28	
Pedestrian Improvements Safety, walkability and neighborhood connectivity, and streetscape improvements	**Investment:** Funds approximately 15% of safety improvement needs **Vision:** Fully funds need for safety improvements	$4.86	$0.71	$1.41	X
Traffic Calming Includes street redesigns to slow traffic on neighborhood streets and biggest roads and automated photo traffic enforcement	**Investment:** Funds the majority of needs **Vision:** Fully funds need	$0.38	$0.37	$0.38	
Signs and Signals New signs and signals	**Investment:** Funds approximately 30% of need **Vision:** Increases funding to approximately 65%	$0.55	$0.16	$0.36	
Safe Routes to School Maintains and expands the current program	**Investment:** Funds approximately 25% of need **Vision:** Fully funds need	$0.06	$0.01	$0.06	
Vision Zero Education Programming to build support for safer streets	**Investment:** Funds approximately 65% of need	$0.06	$0.04	$0.04	
Curb Ramps Inspection and repairs of curb ramps	**Investment:** Funds approximately 37% of need	$0.46	$0.17	$0.17	
Tree Planting Planting and maintenance of new street trees	**Investment:** Funds approximately 35% of need	$0.23	$0.08	$0.08	X

1 https://www.onesanfrancisco.org/Draft-Plan-2022

2 https://connectsf.org/about/resources-and-media/

PROGRAM	INVESTMENT LEVEL	NEED ($B, 2020)	INVESTMENT PLAN ($B, 2020)	VISION PLAN ($B, 2020)	RESILIENCE CO-BENEFIT
Freeway Safety and Operational Improvements					
Vision Zero Ramp Safety Safety improvements at 30 freeway ramp locations in SF	**Investment:** Fully funds need defined in ConnectSF Streets and Freeways Strategy	$0.03	$0.03	$0.03	
Managed Lanes and Express Bus Capital investments for managed lanes network on US-101 and I-280 and purchase of buses to expand express bus service (operations costs excluded)	**Investment:** completion of Managed Lane and additional express bus service on US-101, from King St to Alemany Maze	$0.30	$0.20	$0.20	
Transformative Freeway & Major Street Projects Redesign major roads and freeways to improve connectivity and land use opportunities (e.g. Alemany Interchange; Alemany Stack; Geary Fill)[1]	**Investment:** Funds initial planning phases for project development **Vision:** Additional investments for project advancement	$0.90	$0.22	$0.47	X
Balboa Park Northbound I-280 On-Ramp Closure	**Investment:** Fully funds the study and implementation to improve safety	$0.01	$0.01	$0.01	
Balboa Park Southbound I-280 Off-Ramp Reconfiguration	**Investment:** Fully funds the redesign from a free-flow off ramp to a T-intersection	$0.02	$0.02	$0.02	
Transportation System Development & Management					
Transportation Demand Management					
Transportation Demand Management Parking and Pricing; Research and Evaluation; Mode Shift and Incentives; New Mobility (incl. pilots); Transit Education; Land Use	**Investment:** Funds approximately 50% of need	$0.08	$0.04	$0.04	
Treasure Island Capital Program Capital transportation improvements including West Side Bridges and YBI Multi-Use Path	**Investment:** Fully funds tolling, buses and shuttles, ferry vessel and landside equipment, and other capital costs	$0.45	$0.45	$0.45	
Treasure Island Mobility Management Program Operations Treasure Island Transportation Affordability Program	**Investment:** Fully funds program operations and affordability program	$1.25	$1.25	$1.25	
Downtown Congestion Pricing Program Downtown Pricing Program, including discounts, where revenues go towards increased transit service and bicycle, pedestrian, and transit infrastructure improvements	**Investment:** Fully funds the Congestion Pricing Program	$1.09	$1.09	$1.09	

1 The category includes initial planning for these efforts, full project costs are being developed.

PROGRAM	INVESTMENT LEVEL	NEED ($B, 2020)	INVESTMENT PLAN ($B, 2020)	VISION PLAN ($B, 2020)	RESILIENCE CO-BENEFIT
Transportation, Land Use, and Community Coordination					
Neighborhood Transportation Program Community based planning efforts for each supervisorial district	**Investment:** Fully funds need	$0.19	$0.19	$0.19	X
Equity Priority Transportation Program Community based planning efforts for underserved neighborhoods and areas with vulnerable population, as well as citywide equity evaluations and planning efforts	**Investment:** Fully funds need	$0.19	$0.19	$0.19	
Development Oriented Transportation Community based planning efforts to identify transportation improvements that support increased housing density in existing primarily low density neighborhoods	**Investment:** Fully funds need	$0.26	$0.26	$0.26	
Hunters Point Shipyard and Candlestick Point New local streets within the Hunters Point Shipyard and Candlestick Point area	**Investment:** Fully funds need	$0.50	$0.50	$0.50	
Citywide and Modal Planning Program Transportation studies and planning	**Investment:** Fully funds need	$0.03	$0.03	$0.03	
Transit Operations					
SFMTA Baseline Operations 2022 Muni Investment Levels	**Investment:** Fully funds 2022 Muni operations	$33.8	$33.8	$33.8	
SFMTA Operations Increment Increment investment to reach 2019 investment levels	**Vision:** Fully funds to 2019 investment levels	$5.96	$0	$5.96	
SFMTA Free Muni for Youth Free transit for all youth 18 years or younger	**Investment:** Fully funds need	$0.06	$0.06	$0.06	
Transit Strategy Additional Operations Operations related to Muni forward express bus	**Investment:** Does not fund need **Vision:** Funds approximately 10% of need	$5.26	$0	$0.44*	
BART Operations — San Francisco Share BART operations for 30 years	**Investment:** Nearly meets 2019 investment levels **Vision:** Fully funds 2019 investment levels	$9.90	$9.84	$9.90	
Caltrain Operations — San Francisco Share Caltrain operations for 30 years	**Investment:** Fully funds Caltrain electrification service of 6 trains per hour	$2.80	$2.80	$2.80	
Existing Obligations					
Debt Service/Existing Obligations	**Investment:** Fully funds need	$0.55	$0.55	$0.55	

* The about $2 billion of the new local/regional discretionary revenue in the Vision Plan could go towards these programs.

SFTP 2050: APPENDIX B

Revenue Assumptions Table

FUNDING SOURCES	COMMITTED	DISCRETIONARY	NOTSE ON ASSUMPTIONS
Previously committed funds	$1,668.62	-	Based on project funding plans
County Sales Tax Reauthoritzation (Prop K Reauth)	$550.00	$2,598.00	Based on SFCTA forecast with 2.4% growth rate; includes Priority 2
County VRF (Prop AA)	$74.88	-	Based on SFCTA forecast
County VRF Reauthorization (Prop AA Reauth)	-	$28.18	Based on SFCTA forecast
Developer Fees, Land Sales and Private Contributions	$674.00	-	Based on assumptions from TJPA and estimates for other pending development projects
DTX Passenger Facility Charges	$372.30	-	Based on assumptions from TJPA
Local funding for streets and roads (GO Bonds and General Fund)	$942.00	-	Estimate based on Public Works budgets
Local funding for street tree planting (General Fund and Adopt-a-Tree fund)	$29.00	-	Estimate based on Public Works budgets
Local Partnership Program - Formula	-	$39.31	Based on SFCTA forecast
Measure RR Caltrain Sales Tax	$734.54	-	Based on estimate of SF share of PBA 2050 forecasted revenues
Measure RR BART Bond	$661.34	-	Based on estimate of SF share of PBA 2050 forecasted revenues
OBAG — SF County Program	-	$256.09	Based on estimate of SF share of PBA 2050 forecasted revenues
RTIP	$84.56	$154.86	Based on estimate of SF share of forecasted revenues and existing project commitments
BART Fare Revenue	$5,106.57	-	Based on SF share of PBA 2050 transit operations funding
BART Non-Fare Revenue	$941.50	-	Based on SF share of PBA 2050 transit operations funding
Caltrain Fare Revenue	$1,216.64	-	Based on SF share of PBA 2050 transit operations funding
Caltrain Non-Fare Revenue	$137.36	-	Based on SF share of PBA 2050 transit operations funding
SF General Fund Transfer to SFMTA	$11,906.83	-	Based on PBA 2050 forecast
SF Port Revenues	$26.40	-	Based on project funding plan
SF Prop D/TNC Tax	$260.79	$260.79	Based on SFCTA and Controller's Office forecasts
SF Prop A SFMTA GO Bond	$234.00	-	Based on SFMTA expenditure plan
SF TSF	$961.00	-	Based on TSF expenditure plan
SFMTA Appropriated Fund Balance	$44.14	-	Based on PBA 2050 forecast
SFMTA Fare Revenue	$5,450.93	-	Based on PBA 2050 forecast, Controller's December 2021 report and SFMTA budget updates
SFMTA Paratransit Fare Revenue	$34.08	-	Based on PBA 2050 forecast, Controller's December 2021 report and SFMTA budget updates
SFMTA Rent, Advertising and Interest	$2,272.67	-	Based on PBA 2050 forecast
SFMTA Non-Fare Revenue (Fines, fees, permits, taxis and parking)	$10,009.74	-	Based on PBA 2050 forecast, Controller's December 2021 report and SFMTA budget updates
TFCA County Funds	-	$16.52	Based on PBA 2050 forecast
Treasure Island and Downtown Pricing Program Revenues	$2,210.70	-	Based on SFMCTA forecasts
Other Local (other county contributions to regional projects)	$200.00	-	Based on project funding plans
2% Toll Revenues	$3.10	-	Assumes historic SF share
5% State General Funds	$3.10	-	Assumes historic SF share
AB 1107 ½-cent Sales Tax in three BART Counties (75% BART Share)	$2,918.13	-	Based on estimated SF share of PBA 2050 forecasted revenues
AB 434 (Transportation Fund for Clean Air – Regional) – 60% of funding	-	$32.06	Assumes historic SF share
AB 664 (Bridge Tolls)	$216.86	-	Based on project funding plans
Active Transportation Program (ATP) - Regional Program	-	$61.72	Assumes historic SF share
Regional Measure 2 (RM2)	$14.83	-	Based on project funding plans
Regional Measure 3 (RM3)	$823.33	$176.67	Based on RM3 expenditure plan
Regional SFMTA Operating Grants	$3,091.30	-	Includes AB 1107 Muni share, RM2 operating funds, based on SFMTA operating budgets and PBA 2050 forecasted revenues

FUNDING SOURCES	COMMITTED	DISCRETIONARY	NOTSE ON ASSUMPTIONS
Active Transportation Program (ATP) - State Program	-	$31.00	Assumes historic SF share
Affordable Housing & Sustainable Communities Program	-	$410.75	Assumes historic SF share
Caltrans Planning Grants	-	$30.00	Assumes historic SF share
Cap & Trade Goods Movement (from 40% Uncommitted Funds)	-	$6.20	Based on regional framework and project funding plans
Gas Tax Adjustment	$69.46	-	Based on PBA 2050 forecast
Gas Tax Subvention + RMRA	$1,011.81	-	Assumes historic SF share
High Speed Rail Prop 1A	$550.00	-	Based on project funding plan
Local Partnership Program - Competitive	-	$27.53	Assumes historic SF share
SB1 - Local Planning	-	$6.20	Assumes historic SF share
Low Carbon Fuel Standard	$283.54	-	Based on SF share of PBA 2050 transit operations funding
Low Carbon Transit Operations Program Population-Based	$21.70	-	Assumes historic SF share
Low Carbon Transit Operations Program Revenue-Based	$330.12	-	Assumes historic SF share
Solutions for Congested Corridors	$33.00	$248.00	Based on project funding plans
State Bridges and Culverts	$120.35	-	Based on historic SF share
State Highway Operations & Protection Program (SHOPP)	$150.00	-	Based on historic SF share
State Transit Assistance (STA) Population-Based	-	$106.62	Based on historic SF share
State Transit Assistance (STA) Revenue-Based	$2,064.92	-	Based on historic SF share
State Transit Assistance Capital - Population Based	-	$18.85	Based on historic SF share
State Transit Assistance Capital - Revenue Based	$365.17	-	Based on historic SF share
Interregional Road/Intercity Rail (ITIP)	-	$6.20	Based on project funding plans
Trade Corridor Enhancement	-	$6.20	Based on project funding plans
Transit and Intercity Rail	-	$902.99	Based on historic SF share
FHWA Construction of Ferry Boats & Ferry Terminal Facilities Formula Program	$3.10	-	Assumes historic SF share
FHWA Highway Safety Improvement Program (HSIP)	$31.00	-	Assumes historic SF share
FHWA STP/CMAQ - Regional OBAG program	-	$708.64	Assumes historic SF share
FLAP Federal Lands Access Program	-	$70.00	Based on project funding plans
FTA Passenger Ferry Grant Program	$9.30	-	Assumes historic SF share
FTA Sections 5307 Urbanized Area Formula	$4,663.47	-	Assumes historic SF share
FTA Section 5309 Fixed-Guideway Capital Investment Grants - New Starts and Core Capacity	-	$4,000.00	Based on project funding plans and potential next generation of projects
FTA Section 5309 Fixed-Guideway Capital Investment Grants - Small Starts	-	$400.00	Based on project funding plans and potential next generation of projects
FTA Section 5337 State of Good Repair Formula	$1,634.00	-	Assumes historic SF share
FTA Bus and Bus Facilities Discretionary Program	-	$38.07	Assumes historic SF share
Highway Bridge Program	$62.00	-	Based on potentially eligible projects
National Highway Freight Program	$12.40	-	Based on potentially eligible projects
National Significant Freight and Highway Projects Discretionary Program	-	$12.40	Based on potentially eligible projects
Other Federal (ATCMTD, BUILD, UPP, HPP, FRA Funds)	$15.00	$47.00	Assumes historic SF share
Anticipated Unspecified	-	$2,893.33	Assumes SF share of regional forecast, includes IIJA/BIL revenues
TOTAL SFTP 2050 REVENUE FORECAST	**$65,305.56**	**$13,594.18**	

SFTP 2050: APPENDIX C

SF-CHAMP Analysis Methodology Memo

1. Overview

The San Francisco County Transportation Authority used the San Francisco Chained Activity Modeling Process (SF-CHAMP) to analyze future year investment scenarios for the San Francisco Transportation Plan 2050 (SFTP). This memo documents contents and evaluation methodology for the two scenarios modeled in the SFTP. Scenarios include the 2050 Baseline Scenario (Baseline) and the 2050 Investment Plan Scenario (Investment). Both scenarios use the same year 2050 land-use forecast and allocation but feature different transportation networks. The Baseline includes projects with fully committed funding while the Investment Plan includes everything in the Baseline Scenario and transportation projects which can be funded with anticipated revenues. Additional detail about the scenario development process is available in Appendix A.

This memo is divided into two sections. The first section documents what is included in the Baseline and Investment model scenarios. The second section documents evaluation metrics and how the Investment scenario performed when evaluated using SF-CHAMP for citywide and low-income populations. Appendix D documents the performance of the SFTP Investment Plan for specific Equity Priority Communities. The full SFTP Investment Plan contains some transportation investments which cannot be represented in SF-CHAMP; these were omitted from the Baseline and Investment scenarios.

2. Scenario Definitions

Two scenarios were developed for modeling in SF-CHAMP. Both scenarios represent conditions in 2050 and were modeled using SF-CHAMP version 6.1.2.

Baseline: The baseline scenario includes 2050 land use projections, year 2022 transportation systems, and future projects that are considered fully funded, shown in Table 2.

Investment Scenario: The investment scenario includes all Baseline projects and additional projects that can be funded with existing and expected new revenue sources, shown in Table 3. Not all projects and programs funded in the SFTP can be modeled; the Investment Scenario only includes projects that can be both fully funded and modeled.

LAND USE

The SFTP uses land use forecasts developed for Plan Bay Area 2050 (PBA50)[1]. PBA50 forecasts are made at the regional TAZ level. SF-CHAMP uses the San Francisco

1 https://www.planbayarea.org/plan-bay-area-2050-1

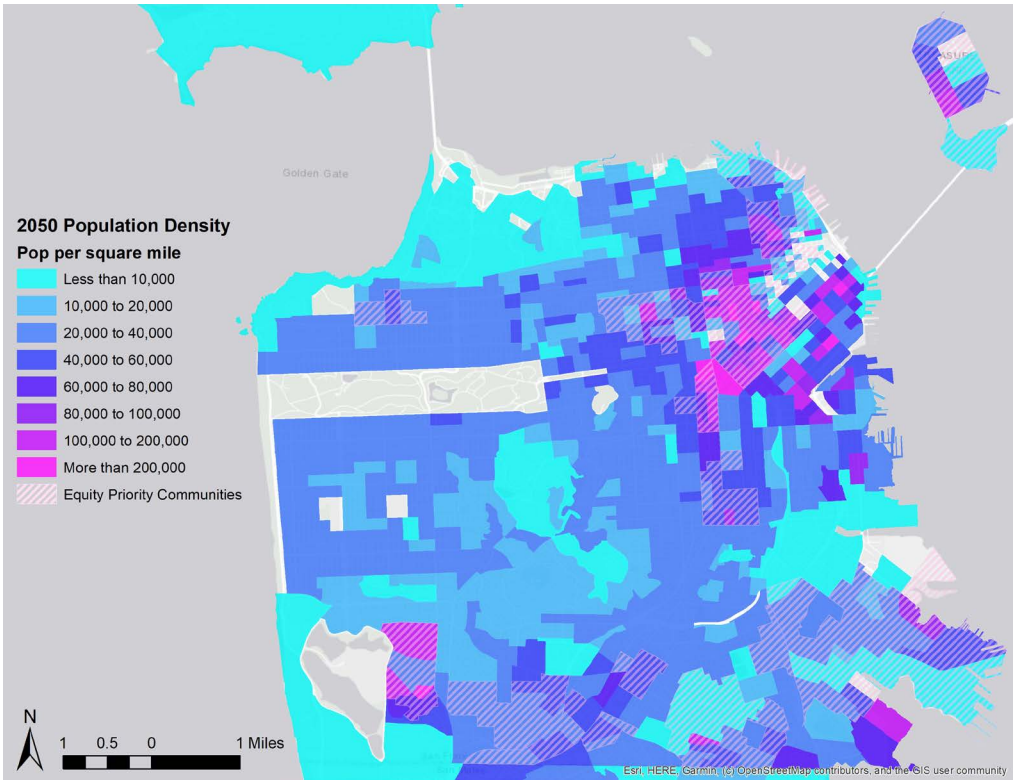
Transportation Analysis Zones (SFTAZ) for representing land use in transportation modeling, a smaller geographic unit than MTC's TAZ system. Land use distribution to SFTAZs within San Francisco is based on San Francisco Planning Department allocations of Plan Bay Area 2040 (PBA40) land use, and the 2040 – 2050 ten-year land use growth increment developed by the San Francisco Planning Department for the ConnectSF Statement of Needs[1]. Final San Francisco Planning Department allocations of PBA50 were not completed in time for SFTP analysis.

Table 1, Figure 1, and Figure 2 show 2050 total land use and land use density projections used for SFTP modeling.[2]

Table 1: SFTP Land Use Forecasts

LOCATION	YEAR	HHS	POP.	EMPLOYED RESIDENTS	JOBS
San Francisco	2050 (PBA50)	578,370	1,272,809	708,929	918,214
Bay Area	2050 (PBA50)	4,043,312	10,325,405	5,419,492	5,408,460

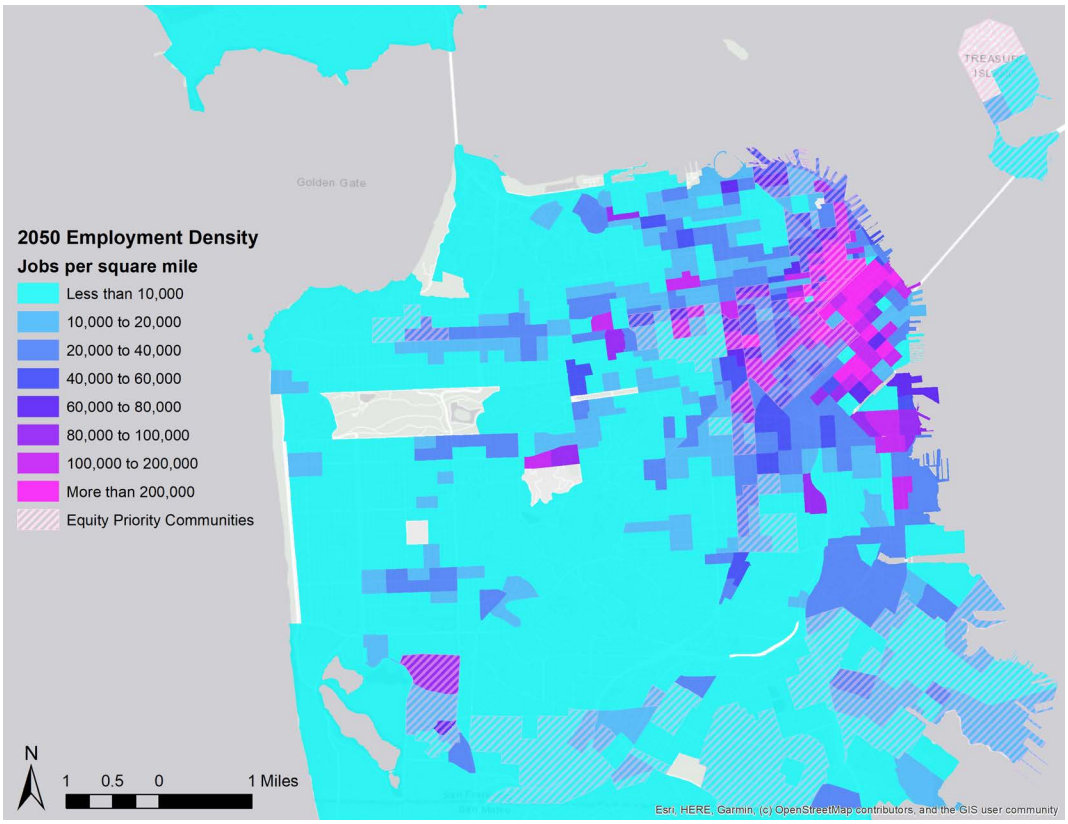
Figure 1: SFTP Land Use 2050 – Map of Population Density



1 https://connectsf.org/wp-content/uploads/ConnectSF_Statement-of-Needs-Report-Final.pdf

2 Land Use Forecasts for the SFTP were different than forecasts used for the ConnectSF Statement of Needs. The ConnectSF Statement of Needs used forecasts from Plan Bay Area 2040

Figure 2: SFTP Land Use 2050 – Map of Employment Density



TRANSPORTATION NETWORK ASSUMPTIONS

The SFTP was developed as the COVID-19 pandemic (the Pandemic) drastically altered travel behaviors, San Francisco's transit network, and the transportation funding ecosystem. The SFTP responded to these unprecedented and changing circumstances by using Muni service levels from Summer 2022 as a starting point for the Baseline scenario. This differs from regional long-range transportation plans which used pre-Pandemic assumptions for transit service levels. The pandemic has created uncertainty about long term travel behavior trends and while the possibility for changes in transit ridership and service provision remain, the SFCTA believes these are reasonable transit service assumptions for forecasting purposes.

Baseline Scenario

The Baseline Scenario includes:

- Summer 2022 SFMTA transit service, including Muni bus and Metro service that was planned to be in operation in Summer 2022.[1]

1 https://www.sfmta.com/projects/2022-muni-service-network

- 2019 BART service levels including 15-minute headways on all lines.
- Post-electrification Caltrain service, including 6 trains per hour during peak periods.
- Fully committed transportation projects, and developer committed transportation projects.
- All transportation projects open as of May 2022.

Table 2: 2050 Baseline Scenario Transportation Network Definition

PROJECT	DESCRIPTION
SF Transit	
Muni Baseline Service	Summer 2022 Muni Service (See Attachment A)
Muni Central Subway	New Light Rail Transit (LRT) extension from 4th St. and King St. to Chinatown, including four new stations. 6 minute headways for two separate services — a full T service and a T-short service which operates between Chinatown and 19th St.
Committed Muni Forward Projects	Muni Forward upgrades that are underway as of May 2022[1] such as 16th St Improvement Project, Mission Street SoMa Transit Improvements, L Taraval Improvement Project, Fulton St, Potrero Ave, and Haight St.
Geary Bus Rapid Transit Phase 1	Phase 1 of Geary Bus Rapid Transit (BRT) Project: Side running transit lanes east of Stanyan St.
Southeast Waterfront Transportation Improvements (including 28R extension as Geneva BRT, and Geneva Ave extension)	Transit facilities, pedestrian paths, and dedicated bicycle lanes throughout the Candlestick/Hunters Point Shipyard project area with connections to BART, T Third light rail, Caltrain, and local bus lines. The project includes an extension of Geneva Avenue from Bayshore Blvd. to Alana Way. This project includes the new CPX and HPX express bus routes and extensions or re-routes of the Muni 23, 24, 28R, 29, 44, and 48 lines. Some service frequencies on bus lines serving the Southeast Waterfront are improved per existing developer agreements[2].

1 https://www.sfmta.com/projects/muni-forward

2 https://sfocii.org/projects/hunters-point-shipyard-candlestick-point-2/document-library

PROJECT	DESCRIPTION
Regional Transit	
BART	15 minute peak and off-peak headways on all lines, including the existing extension to Berryessa (2019 service frequencies)
Caltrain Modernization	Post-electrification Caltrain — 6 trains per hour during peak periods service pattern
New BART Trains	Increases BART train length to ensure 10 car trains on all lines during peak periods
VTA Eastridge LRT Extension	Extend Valley Transportation Authority (VTA) light rail to Eastridge
Sonoma-Marin Area Rail Transit (SMART) to Windsor	Extend SMART north from Sonoma County Airport to Windsor
Local Road Projects	
San Francisco Streetscape Improvements	A variety of planned local street improvements to implement bike lanes, road diets, and transit improvements, including the Transit Center District Plan, Central SoMa streets*, San Bruno bike lane, California road diet, Geneva bike lane, 19th Ave, Embarcadero. *Brannan (2nd – 6th), Harrison bus lanes (2nd – 11th), Bryant (2nd – 7th), 3rd/4th (Market – King),
Hunters Point Shipyard and Candlestick Point Local Roads	Local roads constructed in Hunters Point and Candlestick Point as defined by existing developer agreements.
Treasure Island Capital Program	Bike path connecting the Bay Bridge Bike Path (east span) with Treasure Island. Realignment of Southgate Road, the key connection between I-80 ramps and local roads on Yerba Buena Island and Treasure Island.
Express Lane Projects	
SR-85	Express Lanes on SR-85 from SR-87 to US-101. MTC Assumed permissions and toll rates.
101 Express Lanes[1]	Express Lanes on US-101 from I-380 to SR-237. MTC Assumed permissions and toll rates.
SR-237	Express Lanes on SR-237 from I-880 to US-101. MTC Assumed permissions and toll rates.
580 Express Lanes	Express Lanes on I-580 from I-680 to Greenville Rd. MTC Assumed permissions and toll rates.
680 Express Lanes	Express Lanes on I-680 from Marina Vista to Alcosta and from the Alameda/Santa Clara county line to SR-84. MTC Assumed permissions and toll rates.
880 Express Lanes	Express Lanes on I-880 from Hegenberger to SR-237. MTC Assumed permissions and toll rates.

1 101 Express Lanes include equity discounts which are not included in the SF-CHAMP modeling

INVESTMENT SCENARIO

The Investment Scenario includes all projects noted in the Baseline Scenario and additional projects as shown in Table 3. Some projects and programs which are fully funded by the Investment Plan, such as freeway ramp safety improvements, cannot be modeled in SF-CHAMP. Such projects are not included in Table 3. The full list of projects and programs funded in the Investment Plan is available in Appendix A.

Table 3: Additional Transportation Projects Included in 2050 Investment Scenario

PROJECT	DESCRIPTION
SFMTA Baseline Operations (2022 service levels for bus, except where modified by SF Transit projects listed above, and 2019 service patterns and frequencies for rail)	Increase Muni Metro service levels from 2022 service to 2019 service. The K line operates at the same frequency as the K/T line in 2019, but runs solely between Balboa Park and Embarcadero stations due to the opening of the Central Subway in the Baseline Scenario.
Muni Reliability and Efficiency	Adds transit priority lanes and transit signal priority capital improvements for the 7, 8, 9, 14, 22, 28, 29, 30, 38, 49, M, N, and T. Does not include service frequency changes. Transit priority is added on any street without existing transit priority where there are at least two auto lanes in a given direction of travel.
Muni Rail Core Capacity	Extend N and M Parkmerced Muni Metro routes to 3-car train lengths
Caltrain Downtown Rail Extension (DTX)	Extend Caltrain from 4th and King to Salesforce Transit Center
F Line Extension	Extend SFMTA F Line to Aquatic Park
Bayview Caltrain Station	Add an additional Caltrain station near Oakdale Avenue in the Bayview neighborhood. Assumes that local Caltrain services stop at Oakdale (4 trains per hour at peak) and express services (2 trains per hour at peak) bypass Oakdale.
Mission Bay Ferry Landing	Add a ferry landing and ferry service to Mission Bay
Priority Active Transportation Network	A combination of quick build and permanent bike lane improvements on the core network recommended in the Active Transportation Study, including mobility hubs
Balboa Park Ramps: Northbound I-280 on ramp Closed	Close the northbound Geneva Ave on-ramp to I-280
Balboa Park Ramps: Southbound I-280 Off-Ramp Reconfiguration	Realign the existing Southbound Ocean Avenue off-ramp from I-280 from a free flow right turn to a signalized T-intersection.
Treasure Island Mobility Management Program Operations	Transit improvements for Treasure Island including increased Muni bus service (improved 25 line frequency and new 109 line), new AC Transit service, local on-island shuttles, new ferry service, and I-80 ramp tolling. New local streets are included in the Baseline.
Downtown Congestion Pricing Program	Implements northeast congestion pricing cordon and increases frequency on transit lines which serve the downtown cordon. Adds 68 one-way Muni bus runs during the AM peak (3-hour) period and 75 additional one-way Muni bus runs during the PM peak (3-hour) period. Increases regional bus service serving the corridor by 18 one-way runs in the AM peak period and 22 one-way runs in the PM-peak period.
101/280 Managed Lanes	Southbound HOV3+ lanes on 101 between the San Francisco / San Mateo county line and the I-280 Interchange. HOV3+ on I-280 between the US-101 interchange and King St in both directions.

3. Performance Metrics

Table 4, below, lists the performance measures SFTP used to evaluate the effectiveness of the Investment Scenario. The performance measures are generally based on metrics applied in previous ConnectSF efforts, including the Statement of Needs and Transit Corridor Study. Metrics shown in purple and marked with an asterisk (*) were evaluated quantitatively through SF-CHAMP modeling and are detailed in Table 4.

Table 4: Goals and Performance Metrics

ENVIRONMENTAL SUSTAINABILITY	ECONOMIC VITALITY	SAFETY & LIVABILITY	ACCOUNTABILITY & ENGAGEMENT
Mode share*	Job access*	Likely reduction in injuries/ fatalities	Street maintenance investment levels
Vehicle Miles Traveled*	Transit crowding*		Transit maintenance investment levels
Greenhouse Gas Emissions*	Average Commute Times*		Jobs created/maintained
	Transportation Affordability		

The SFTP uses an equity evaluation strategy which measures the impacts of investment scenarios on specific citywide populations as well as impacts on individual EPCs. This will allow planners to understand the equity impacts of the investment plan and whether projects are responding to the needs of individual EPC neighborhoods. Additional detail and results of the Equity assessment can be found in Appendix D. Table 5 provides additional detail about how, and for which populations, metrics were measured.

Table 5: Key Performance Metrics

METRIC	BREAKDOWN				DETAIL
	CITYWIDE	LOW-INCOME	EPC	OTHER	
Mode Share	X	X	X	Trips To/From/Within SF Regional Trips — East Bay Regional Trips — Peninsula/SB	SF-CHAMP's activity-based model estimates trips taken by residents of the 9 county Bay Area (SF-CHAMP also estimates commercial, truck, visitor, and internal-external trips, but these are not included in this summary)
Vehicle Miles Traveled (VMT)	X			On City Streets, Per SF Resident	Vehicle Miles Traveled is measured two ways: Total miles on San Francisco Streets (all vehicles when operating within San Francisco) Miles traveled per San Francisco household (personal travel only, anywhere in the Bay Area)
Greenhouse Gas Emissions (GHG)	X			On City Streets, Per SF Resident	Greenhouse Gas Emissions is measured two ways: GHG emitted within San Francisco (all vehicles when operating within San Francisco) Average GHG emissions per San Francisco resident (personal travel only, anywhere in the Bay Area)
Traffic Exposure			X		VMT on roads located inside or within ¼ mile of EPC boundaries
Job Access	X	X	X	Transit (45 minutes), Driving (30 minutes), Regional Transit (75 minutes)	The average number of jobs accessible for a household within a certain time range by a certain mode during the AM peak period.
Transit Crowding	X			Muni Non-Muni	Percent of passenger miles across the transit network which experience crowded conditions.
Average Commute Times	X	X	X	Driving Transit	Estimated average total trip time for weekday one-way commute trips to work and school. Separate breakdowns are available for driving and transit travel modes.
Reduction in injuries/ fatalities			X		Off-model analysis; See Appendix D

4. Citywide Results

Tables in this section show results from SF-CHAMP modeling for citywide, regional, and low-income populations. Information about the modeling process and results for San Francisco's EPCs is available in Appendix D.

Table 6: SFTP Investment Scenario Results Summary

MODE SHARE SHIFT	VMT / GHG	JOB ACCESS	COMMUTE TIME	TRANSIT CROWDING
High impact	**High Impact**	**Moderate Impact**	**High Impact**	**No benefit**
Transit trips increase by over 4% citywide and transit mode share expands by 1% while driving mode shares shrink more than 1%	VMT and GHG both fall by over 3%	Transit job access increases over 8%. Auto and regional transit job access also improve by 1 – 2%.	Transit commute times fall by almost 3%, saving commuters about 7 hours per year. Driving commute times are either unchanged or fall modestly.	Crowding increases, but most transit passenger miles (79% Muni, 85% regional) remain uncrowded.

Table 7: Significance Thresholds for Select Metrics

METRIC	DETAIL	SIGNIFICANCE THRESHOLDS
Mode share	Sum of increase in transit mode share and decrease in driving mode share.	1% for high, 0.5% for med, 0.2% for some
GHG	Changes in GHG released by vehicles on San Francisco roads and per capita auto GHG emissions	More than 1% drop for high, 0.4% for med, 0.1% for some
Job Access	Average of percent change in job access within 30-minutes driving and 45 minutes on transit.	>10% for high, >2% for med, >1% for some
Transit crowding	Decrease in share of transit in-vehicle passenger miles in crowded conditions.	>5% for high, >2% for med, >1% for some
Commute Time	Decrease in school and work commute time, measured separately for transit and driving	<-2% for high, <-1% for med

Table 8 shows Baseline and Investment Scenario model results for mode share. The investment plan has a high effect on mode share, both for all trips to/from/within SF, and for trips to/from/within SF made by low-income residents. For both groups, transit mode share rises by 3 – 5%, while driving mode share decreases by about 2%.

Table 8: Mode Share

	BASELINE	INVESTMENT	CHANGE	PCT CHANGE
All Trips To/From/Within SF				
Transit	21%	22%	1.0%	5.0%
Drive / TNC	62%	60%	-1.3%	-2.1%
Walk	15%	15%	0.3%	1.7%
Bike	2.7%	2.7%	0.0%	1.1%
Trips by People with Low Incomes To /From /Within SF				
Transit	25%	26%	0.8%	3.0%
Drive / TNC	51%	50%	-0.9%	-1.7%
Walk	21%	21%	0.1%	0.6%
Bike	3.2%	3.2%	0.0%	0.1%
SF Trips To/From East Bay				
Transit	42%	43%	0.8%	2.0%
Drive / TNC	58%	57%	-0.8%	-1.5%
Walk	0.0%	0.0%	0.0%	-
Bike	0.0%	0.0%	0.0%	-
SF Trips To/From Peninsula or South Bay				
Transit	17%	18%	0.9%	5.4%
Drive / TNC	81%	80%	-1.0%	-1.2%
Walk	1.3%	1.4%	0.0%	2.9%
Bike	1.3%	1.3%	0.0%	0.2%

Table 9 and Table 10 show Baseline and Investment Scenario model results for vehicle miles traveled and greenhouse gas emissions. The Investment Plan has a high effect on greenhouse gas emissions made by SF residents, and a high effect on greenhouse gas emissions for driving in San Francisco.

Table 9: Vehicle Miles Traveled

	BASELINE	INVESTMENT	CHANGE	PCT CHANGE
Vehicle miles traveled within San Francisco (THOUSANDS)	11,800	11,400	-0.4	-3.6%
Weekday Per Capita SF Resident VMT	6.5	6.2	-0.3	-3.9%

Table 10: Greenhouse Gas Emissions

	BASELINE	INVESTMENT	CHANGE	PCT CHANGE
GHG emissions from driving within San Francisco (lbs of CO2e, THOUSANDS)	8,700	8,500	-0.3	-3.3%
SF Resident GHG Per Capita (lbs of CO2e)	3.2	3.0	-0.1	-3.9%

Table 11 shows a moderate increase in job accessibility for both San Francisco residents and the subset of San Francisco residents with low incomes. 45-minute transit job access increases by at least 6% for both groups, while job access by auto increases by about 2%.

Table 11: Job Access

	BASELINE	INVESTMENT	CHANGE	PCT CHANGE
SF Resident 45 Minute Transit Job Access (THOUSANDS)				
All residents	593	640	47	8.0%
Low income	635	676	40	6.4%
SF Resident 30 Minute Auto Job Access (THOUSANDS)				
All residents	1,120	1,140	20	1.7%
Low income	1,140	1,160	23	2.0%
Regional Resident 75 Minute Transit Job Access (THOUSANDS)				
All residents	340	344	4.9	1.4%
Low income	448	454	5.9	1.3%

Table 12 shows that transit crowding increases in the investment plan scenario, however most transit passenger miles (79% Muni, 85% regional) remain uncrowded.

Table 12: Transit Crowding

	BASELINE	INVESTMENT	CHANGE	PCT CHANGE
SFMTA				
Passenger miles of crowding (thousands)	438	534	96	21.9%
Crowded % of passenger miles	20.1%	21.8%	1.7%	8.5%
Regional Operators				
Passenger miles of crowding (thousands)	1,520	1,640	124	8.2%
Crowded % of passenger miles	12.5%	13.3%	0.8%	6.5%

Table 13 shows that transit commute times decrease in the investment plan scenario, while driving commutes are moderately faster or remain unchanged.

Table 13: Commute Times

	BASELINE	INVESTMENT	CHANGE	PCT CHANGE
Commute time (minutes, any mode)				
All residents	22.0	21.8	-0.2	-0.8%
Low income	22.3	22.0	-0.3	-1.4%
Transit commute time (minutes)				
All residents	28.3	27.5	-0.8	-2.9%
Low income	29.2	28.1	-1.1	-3.8%
Drive commute time (minutes)				
All residents	20.1	20.0	-0.1	-0.6%
Low income	17.1	17.3	0.3	1.4%

Table 14 shows that the in vehicle speed experienced by transit riders on San Francisco streets increases approximately 15% in the Investment Plan scenario. Vehicle speeds are reduced slightly in the investment plan scenario.

Table 14: Transit and Traffic Speeds

	BASELINE	INVESTMENT	CHANGE	PCT CHANGE
Average transit vehicle speed experienced on San Francisco streets (MPH)	10.4	11.9	1.5	14.8%
Average vehicle speed on San Francisco streets (MPH)	18.8	18.1	-0.8	-4.0%

Attachment A. Summer 2022 Muni Service

Table 15: Assumed Summer 2022 SFMTA Service Headways by Time of Day in Minutes

ROUTE	AM PEAK	MIDDAY	PM PEAK	EVENING
1	7.0	7.0	7.0	20.0
1-Short	8.0	8.0	8.0	0.0
2	15.0	15.0	15.0	40.0
5	8.0	8.0	8.0	18.0
5R	10.0	10.0	11.0	0.0
6	20.0	20.0	20.0	60.0
7	12.0	12.0	12.0	30.0
8AX	8.0	0.0	8.0	0.0
8BX	8.0	0.0	8.0	0.0
8X	7.0	7.0	7.0	20.0
9	10.0	10.0	10.0	26.0
9R	10.0	10.0	10.0	0.0
10	15.0	15.0	15.0	40.0
12	7.5	7.5	7.5	30.0
14	7.0	10.0	8.0	16.0
14R	10.0	10.0	10.0	30.0
15	10.0	10.0	10.0	30.0
17	20.0	20.0	20.0	40.0
18	20.0	20.0	20.0	40.0
19	15.0	15.0	15.0	30.0
21	15.0	15.0	15.0	40.0
22	6.0	6.0	7.0	14.0
23	20.0	20.0	20.0	60.0
24	10.0	10.0	10.0	26.0
25	15.0	15.0	15.0	40.0
27	15.0	15.0	15.0	34.0
28	12.0	12.0	12.0	34.0

ROUTE	AM PEAK	MIDDAY	PM PEAK	EVENING
28R	10.0	10.0	10.0	0.0
29	9.0	9.0	9.0	30.0
30	12.0	12.0	12.0	30.0
30-Short	12.0	12.0	12.0	30.0
31	20.0	20.0	20.0	60.0
33	15.0	15.0	15.0	40.0
35	30.0	30.0	30.0	60.0
36	30.0	30.0	30.0	60.0
37	24.0	20.0	20.0	60.0
38	16.0	16.0	20.0	30.0
38-Short	16.0	16.0	20.0	0.0
38R	6.0	6.0	6.0	20.0
39	0.0	20.0	20.0	0.0
43	12.0	12.0	12.0	30.0
44	12.0	12.0	12.0	34.0
45	11.0	12.0	13.0	30.0
48	15.0	15.0	15.0	40.0
49	6.0	7.0	6.0	30.0
52	20.0	20.0	20.0	48.0
54	20.0	20.0	20.0	60.0
55	15.0	15.0	15.0	40.0
56	20.0	20.0	20.0	40.0
58	30.0	30.0	30.0	60.0
59	10.0	8.0	8.0	24.8
60	10.0	8.0	8.0	24.8
61	6.0	8.0	8.0	15.5
66	20.0	20.0	20.0	40.0
67	20.0	20.0	20.0	40.0
F	17.0	12.0	13.0	34.0
J	15.0	15.0	15.0	40.0
K	10.0	10.0	10.0	30.0
L-Bus	10.0	10.0	10.0	30.0
M	11.0	10.0	11.0	30.0
N	10.0	10.0	10.0	20.0

* Summer 2022 service frequencies used in SFTP modeling were provided in Spring of 2022 and may not match actual conditions perfectly

Attachment B. Baseline Scenario Muni Service

Table 16: Assumed 2050 Baseline Scenario SFMTA Service Headways by Time of Day in Minutes

ROUTE	AM PEAK	MIDDAY	PM PEAK	EVENING
1	7.0	7.0	7.0	10.0
2	15.0	15.0	15.0	20.0
5	8.0	8.0	8.0	9.0
6	20.0	20.0	20.0	30.0
7	12.0	12.0	12.0	15.0
8	7.0	7.0	7.0	10.0
9	10.0	10.0	10.0	13.0
10	15.0	15.0	15.0	20.0
12	7.5	7.5	7.5	15.0
14	7.0	10.0	8.0	8.0
15	10.0	10.0	10.0	15.0
17	20.0	20.0	20.0	20.0
18	20.0	20.0	20.0	20.0
19	15.0	15.0	15.0	15.0
21	15.0	15.0	15.0	20.0
22	10.0	12.0	10.0	15.0
23	20.0	20.0	20.0	30.0
24	7.5	10.0	7.5	15.0
25	7.5	10.0	5.0	10.0
27	15.0	15.0	15.0	17.0
28	12.0	12.0	12.0	17.0
29	10.0	10.0	10.0	15.0
30	12.0	12.0	12.0	15.0
31	20.0	20.0	20.0	30.0
33	15.0	15.0	15.0	20.0
35	30.0	30.0	30.0	30.0
36	30.0	30.0	30.0	30.0
37	24.0	20.0	20.0	30.0
38	16.0	16.0	20.0	15.0
39	0.0	20.0	20.0	0.0
43	12.0	12.0	12.0	15.0
44	12.0	12.0	12.0	17.0
45	11.0	12.0	13.0	15.0
48	10.0	15.0	10.0	20.0
49	6.0	7.0	6.0	15.0
52	20.0	20.0	20.0	24.0
54	20.0	20.0	20.0	30.0
55	15.0	15.0	15.0	20.0
56	20.0	20.0	20.0	20.0

ROUTE	AM PEAK	MIDDAY	PM PEAK	EVENING
58	15.0	15.0	15.0	20.0
58	30.0	30.0	30.0	30.0
59	10.0	8.0	8.0	12.4
60	10.0	8.0	8.0	12.4
61	6.0	8.0	8.0	15.5
66	20.0	20.0	20.0	20.0
67	20.0	20.0	20.0	20.0
14R	10.0	10.0	10.0	15.0
1-Short	8.0	8.0	8.0	0.0
22-Short	10.0	12.0	10.0	0.0
28R	8.0	10.0	8.0	30.0
29-Short	10.0	0.0	10.0	0.0
38R	6.0	6.0	6.0	10.0
38-Short	16.0	16.0	20.0	0.0
5R	10.0	10.0	11.0	0.0
8AX	8.0	0.0	8.0	0.0
8BX	8.0	0.0	8.0	0.0
9R	10.0	10.0	10.0	0.0
CPX	15.0	30.0	15.0	30.0
F	17.0	12.0	13.0	17.0
HPX	12.0	30.0	12.0	30.0
J	15.0	15.0	15.0	20.0
K	10.0	10.0	10.0	15.0
L-Bus	10.0	10.0	10.0	15.0
M	17.0	10.0	17.0	10.0
M Parkmerced	17.0	0.0	17.0	0.0
N	10.0	10.0	10.0	10.0
T	8.0	10.0	8.0	15.0
T-Short	8.0	10.0	8.0	0.0

Attachment C. Investment Plan Muni Service

Table 17: Assumed 2050 Investment Scenario SFMTA Service Headways by Time of Day in Minutes

ROUTE	AM PEAK	MIDDAY	PM PEAK	EVENING
1	7.0	7.0	7.0	10.0
2	15.0	15.0	15.0	20.0
5	8.0	8.0	8.0	9.0
6	20.0	20.0	20.0	30.0
7	12.0	12.0	12.0	15.0
8	7.0	7.0	7.0	10.0
9	10.0	10.0	10.0	13.0
10	15.0	15.0	15.0	20.0
12	7.5	7.5	7.5	15.0
14	7.0	10.0	8.0	8.0
15	10.0	10.0	10.0	15.0
18	20.0	20.0	20.0	20.0
19	15.0	15.0	0.0	15.0
21	15.0	15.0	15.0	20.0
22	9.0	12.0	9.5	15.0
23	20.0	20.0	20.0	30.0
24	7.5	10.0	7.5	15.0
25	7.5	10.0	5.0	10.0
27	15.0	15.0	15.0	17.0
28	12.0	12.0	12.0	17.0
29	10.0	10.0	10.0	15.0
30	11.3	12.0	12.0	15.0
31	20.0	20.0	20.0	30.0
33	15.0	15.0	15.0	20.0
35	30.0	30.0	30.0	30.0
36	30.0	30.0	30.0	30.0
37	24.0	20.0	20.0	30.0
38	16.0	16.0	18.0	15.0
39	0.0	20.0	20.0	0.0
43	12.0	12.0	12.0	15.0
44	12.0	12.0	12.0	17.0
45	10.4	12.0	13.0	15.0
48	9.5	15.0	10.0	20.0
49	6.0	7.0	6.0	15.0
52	20.0	20.0	20.0	24.0
54	20.0	20.0	20.0	30.0
55	15.0	15.0	15.0	20.0
56	20.0	20.0	20.0	20.0
57	20.0	20.0	20.0	20.0

ROUTE	AM PEAK	MIDDAY	PM PEAK	EVENING
58	15.0	15.0	15.0	20.0
58	30.0	30.0	30.0	30.0
59	10.0	8.0	8.0	12.4
60	9.5	8.0	8.0	12.4
61	6.0	8.0	0.0	15.5
66	20.0	20.0	20.0	20.0
67	20.0	20.0	20.0	20.0
109	12.0	30.0	12.0	30.0
14R	10.0	10.0	10.0	15.0
1-Short	8.0	8.0	8.0	0.0
22-Short	10.0	12.0	10.0	0.0
28R	8.0	10.0	8.0	30.0
29-Short	10.0	0.0	10.0	0.0
38R	6.0	6.0	5.5	10.0
38-Short	16.0	16.0	20.0	0.0
5R	10.0	10.0	11.0	0.0
8AX	8.0	0.0	7.3	0.0
8BX	8.0	0.0	7.1	0.0
9R	10.0	10.0	9.5	0.0
CPX	15.0	30.0	15.0	30.0
F	7.2	6.0	4.9	10.0
HPX	12.0	30.0	12.0	30.0
J	8.0	10.0	9.0	9.2
K	7.7	10.0	7.7	15.0
L	7.5	10.0	7.5	11.3
M	17.0	10.0	17.0	10.0
M Parkmerced	17.0	0.0	17.0	0.0
N	5.5	10.0	6.0	10.0
T	6.0	10.0	6.0	12.0
TI Shuttle1	10.0	10.0	10.0	10.0
TI Shuttle2	10.0	10.0	10.0	10.0
TI Shuttle3	10.0	10.0	10.0	10.0
T-Short	6.0	10.0	6.0	0.0

SFTP 2050: APPENDIX D

Equity Evaluation

Introduction

The San Francisco Transportation Plan (SFTP) is the citywide long-range investment and policy blueprint for San Francisco's transportation system. The plan considers all transportation modes, transit operators, and streets and freeways. The SFTP 2050 establishes the city's transportation investment priorities for the next 30 years and will position San Francisco for regional, state, and federal funding. The SFTP is updated every four years, along with Plan Bay Area (PBA), the region's long-range plan.

The SFTP 2050 is part of ConnectSF,[1] a multi-agency collaborative process to build an effective, equitable, and sustainable transportation system for San Francisco's future. This memo documents how equity, a central goal of ConnectSF, is incorporated and evaluated in the SFTP 2050.

EQUITY IN PAST SFTPS

Equity has been important to San Francisco's previous long-range transportation plans, however, the city's strategy for incorporating equity has evolved with each plan.

2004 Countywide Plan

The 2004 Countywide Plan included a goal to "ensure equity in transportation investments through a broad distribution of benefits among all city residents; minimizing the negative impacts of transportation." Key system performance measures were evaluated for target populations (low-income households; zero car households; female-headed households with children; and minority households). Analysis showed how the Countywide Plan performed differently for different groups.

2013 SFTP

The 2013 SFTP analyzed how transportation conditions such as safety, transit access, and reliability vary geographically in San Francisco. Conditions were compared between neighborhoods and for Communities of Concern – areas of the city with high concentrations of populations that could be considered disadvantaged or vulnerable (now called Equity Priority Communities or EPCs).[2] Results from the comparison helped shape the investment scenarios and funding was prioritized for projects which addressed identified inequities in the existing transportation system.

2017 SFTP Update

The 2017 SFTP Update combined a progress report on activities recommended in the 2013 SFTP with an updated look at sector needs and trends. The 2017 plan highlighted equity-focused studies designed to address the disparities identified in

1 https://connectsf.org/

2 https://www.sfcta.org/sites/default/files/2019-06/SFTP%20Appendix%20F%20Transportation%20Equity%20Analysis.pdf

2013. The 2017 SFTP also revisited project evaluations from 2013 with updated costs, scopes, new projects, and new Communities of Concern (now called Equity Priority Communities or EPCs).

SFTP 2050 and Sales Tax Reauthorization

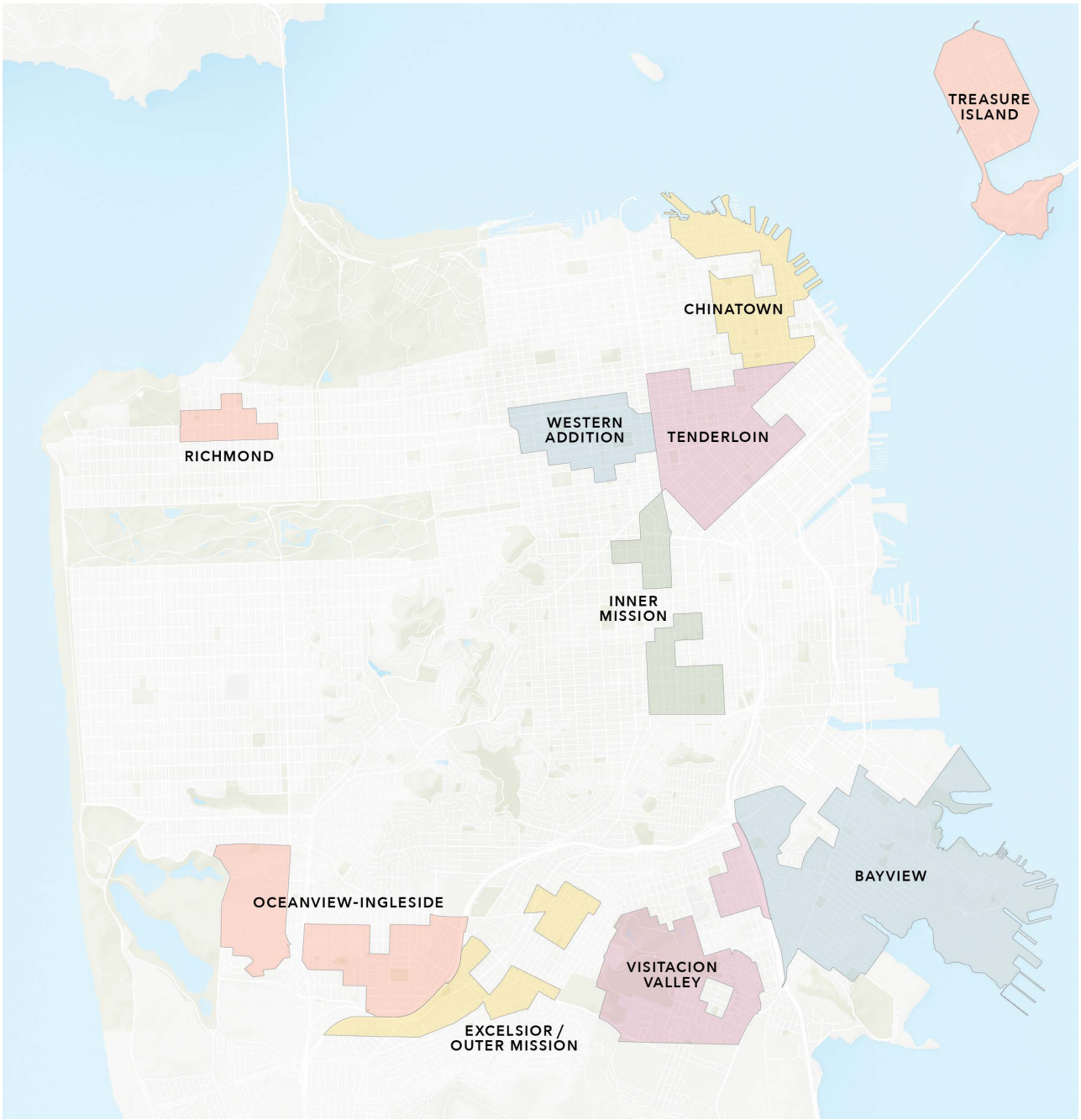
The SFTP 2050 is coordinated with the development of the 2022 Transportation Expenditure Plan. The SFTP defines the City's long-range transportation investment priorities, and the Expenditure Plan articulates which transportation projects will be eligible for local funding under a potential re-authorization of San Francisco's voter approved sales tax, Proposition K. The Expenditure Plan helps implement the priorities and long-term vision for the maintenance, development, and improvement of San Francisco's transportation system, as articulated in the SFTP.

Transportation equity in San francisco now

Equity is one of San Francisco's most important priorities for the transportation system and one of five ConnectSF Goals. To operationalize this goal, the San Francisco County Transportation Authority's (Transportation Authority) conducted an equity assessment for the 2022 Transportation Expenditure Plan,[1] which outlined how the current transportation system is advancing equity and where it falls short for EPCs across the city, shown in Figure 1.

1 https://www.sfcta.org/sites/default/files/2021-09/SFCTA_Equity-Assessment-for-New-Sales-Tax-Expenditure-Plan_2021-09-17_FINAL.pdf

Figure 1: Equity Priority Community Neighborhoods



SUMMARY OF FINDINGS FROM 2022 TRANSPORTATION EXPENDITURE PLAN EQUITY ASSESSMENT

The Equity Assessment found that transportation needs and challenges vary between EPC neighborhoods in San Francisco. Specific neighborhood needs can also differ from the needs of people with low incomes, people of color, people with disabilities, or other specific groups who live in every part of San Francisco.

- **Accessibility for Low Mobility Individuals:** Most households in Equity Priority Communities near downtown (Western Addition, Tenderloin, Chinatown, Inner Mission) have no vehicle available and rely on transit or other modes of transportation. A disproportionate number of households within Equity Priority Communities include one or more people with disabilities, impacting their options for getting around.
- **Transportation Costs:** Residents in Equity Priority Communities spend a greater percentage of their income on transportation than in other areas of the city. Some of the block groups where this challenge is most acute are in the Chinatown, Tenderloin, Western Addition, and Bayview neighborhoods.
- **Health Outcomes:** Many Equity Priority Communities are at elevated risk of developing cancer due to traffic exhaust in their neighborhoods.[1] The cancer risk is particularly high for the Tenderloin, Chinatown, and Western Addition neighborhoods.
- **Pedestrian and Bicycle Safety:** Most of the high-injury network[2] is concentrated in northeastern San Francisco, meaning that the Equity Priority Communities within the Tenderloin, Chinatown, Western Addition, and Inner Mission/Soma are disproportionately at risk of pedestrian or bicyclist injuries or fatalities.
- **Travel Time and Job Accessibility:** Equity Priority Communities in the Tenderloin, Chinatown, Western Addition, and Inner Mission neighborhoods have high job access by transit or vehicle because of their proximity to downtown and regional transit. However, within the Equity Priority Communities in the Bayview, Visitacion Valley, Excelsior/Outer Mission, Oceanview-Ingleside and Treasure Island many more jobs are accessible within a 30-minute drive than within 45 minutes on transit.

1 San Francisco Citywide Health Risk Assessment: Technical Support Documentation, accessed at www.sfdph.org/dph/files/EHSdocs/AirQuality/Air_Pollutant_Exposure_Zone_Technical_Documentation_2020.pdf

2 https://www.visionzerosf.org/maps-data/

- **Need for Robust Outreach:** While this research uncovers many important trends related to equity and transportation needs, addressing the remaining gaps and gaining a clear picture of Prop K's role in advancing equity will require ongoing robust outreach. The transportation needs of Equity Priority Communities differ geographically, suggesting the importance of engaging each Equity Priority Community individually when assessing the impacts of citywide or large-scale projects. Furthermore, while this research focused on geographic concentrations of disadvantage, outreach should solicit the opinions and experiences of the many marginalized individuals that live in less disadvantaged neighborhoods. Ongoing engagement will also be needed to better understand and prevent displacement and gentrification caused by transportation investments.

The 2022 Transportation Expenditure Plan Equity Assessment also found that people of color comprise a larger percentage of the population in Equity Priority Communities than they do in other areas of the city (Table 1). While Black and Hispanic or Latino people make up 2.7% and 11.5% of the population, respectively, in areas that are not Equity Priority Communities, they are 10% and 23% of the population in Equity Priority Communities. Census block groups with a large percentage of Black or Hispanic residents generally align with census block groups that are designated as Equity Priority Communities. The percentage of the population that identifies as Asian, Pacific Islander, Native American, two or more races, or another nonwhite race are also higher in EPCs than other areas.

Table 1: 2020 Race and Ethnicity in EPCs

RACE AND ETHNICITY	EPCS		NON-EPCS		CITYWIDE	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
White Alone	92,594	32%	315,943	53.40%	408,578	46.30%
Black Alone	28,750	10%	16,274	2.70%	45,024	5.10%
American Indian Alone	1,806	1%	1,818	0.30%	3,624	0.40%
Asian Alone	114,816	40%	200,879	33.90%	315,691	35.80%
Pacific Islander Alone	2,290	1%	1,237	0.20%	3,527	0.40%
Some Other Race Alone	33,641	12%	25,148	4.20%	58,789	6.70%
Two or More Races	15,754	5%	30,803	5.20%	46,558	5.30%
Hispanic Origin (Any Race)	67,166	23%	68,019	11.50%	135,187	15.30%

Source: U.S. Census Bureau, Esri Forecasts for 2020, obtained through the "Demographic and Income" Profile at communityanalyst.arcgis.com

Equity Analysis Approach for SFTP 2050

OUTREACH AND ENGAGEMENT STRATEGY

Outreach for the SFTP built on previous engagement for the ConnectSF process and focused on understanding community priorities for discretionary revenues – those revenues with the most flexibility. Engagement included community presentations, a town hall, and online survey available in English, Spanish, Chinese, Russian, and Filipino.

The series of community presentations was designed to ensure active engagement with EPC residents. In Spring 2022, staff reached out to 45 organizations across the city to offer presentations as an opportunity to provide feedback on the SFTP. Meetings with Community Based Organizations in EPCs were prioritized. 13 groups received a presentation focused on collecting input on investment priorities. The team conducted three monolingual, non-English presentations: one in Spanish to La Raza Community Resource Center, and two in Cantonese to Community Youth Center of San Francisco and Self Help for the Elderly. Organizations that accommodated standalone presentations for their members or promoted the SFTP 2050 survey through social media were offered stipends. Additional information on the SFTP 2050 engagement strategy is available in Appendix E.

ANALYSIS

The SFTP uses an equity evaluation strategy which responds to the Expenditure Plan Equity Assessment findings by measuring the impacts of investment scenarios on the citywide population, on low-income households, and on residents of EPCs by neighborhood. This ensures that recommended investment scenarios advance equity by benefitting the citywide population, low-income households, and responding to the needs of individual EPC neighborhoods. Equity analysis for the SFTP 2050 measures the effects of investment scenarios on the populations below and compares results for these populations to outcomes for full San Francisco and regional populations:

- San Francisco Low-income residents (citywide)
- San Francisco EPC residents (citywide and by EPC neighborhood)
- Non-San Francisco low-income residents (analysis for job access only)
- Non-San Francisco EPC residents (analysis for job access only)

The definitions of EPC neighborhoods used for the evaluation are shown in Figure 1. EPC neighborhoods were defined by sorting San Francisco's EPC designated census

tracts[1] into groups using SFMTA's Equity Neighborhoods[2] as a guide for drawing boundaries. Major roads were used as dividers between EPC neighborhoods. Two clusters of census tracts were defined by the SFCTA as EPCs but were not Equity neighborhoods in SFMTA's Service Equity Strategy: Treasure Island, which is typically grouped together as part of the District 6 EPC, and a portion of the Richmond District, which is a new EPC as of 2021. These were defined as unique EPC neighborhoods for the purposes of SFTP analysis.

After defining EPC neighborhoods findings, from the 2022 Transportation Expenditure Plan Equity Analysis were used to identify specific needs for each EPC neighborhood (Table 2). The process for identifying key needs is detailed in Attachment A. Table 2 shows metrics which were defined to measure the impact of SFTP scenarios on key EPC needs.

Table 2: Key Needs by Equity Priority Community (EPCs)

EPC	HIGH TRANSPORTATION COSTS	EXCESS POLLUTION	LOW JOB ACCESS	HIGH DRIVING MODE SHARE	LONG COMMUTE TRAVEL TIMES	HIGH INJURIES
Chinatown	X	X				X
Tenderloin	X	X				X
Western Addition	X	X				X
Inner Mission		X				X
Bayview	X		X	X	X	
Excelsior/Outer Mission		X	X		X	
Visitacion Valley			X	X	X	
Oceanview-Ingleside			X	X	X	
Treasure Island			X	X	X	
Richmond			X	X	X	

The EPC needs-identification process highlighted that EPCs located close to downtown San Francisco (Chinatown, Tenderloin, Western Addition, Inner Mission) tend to have similar needs, and EPCs farther from downtown (Bayview, Excelsior/Outer Mission,

1 https://www.sfcta.org/policies/equity-priority-communities

2 Muni Service Equity Strategy – Page 7; https://www.sfmta.com/sites/default/files/reports-and-documents/2020/05/final_-_2020_muni_equity_strategy_0.pdf

Visitacion Valley, Oceanview-Ingleside, Treasure Island, Richmond) are also similar in their profile of demonstrated needs.

Investment scenarios were evaluated for citywide impacts on EPC residents, low-income households, and the general population. Impacts on individual EPCs were also evaluated for each of the five metrics in Table 3. Results demonstrate how the SFTP 2050 investments help address identified needs within each EPC and make progress on citywide goals.

Table 3: SFTP Metrics for Measuring EPC Needs

METRIC	DEFINITION
High Transportation Costs	It is not possible to model change in household transportation costs with a high degree of confidence. In lieu of a modelled, quantitative analysis, we evaluate transportation costs qualitatively to identify and elevate efforts to make transportation cheaper
Traffic Exposure[1]	VMT on links within a ¼ mile buffer of EPCs
Low Job Access	Change in transit job access (45 minutes)
High Driving Mode Share	Change in driving mode share
Long Commute Travel Times	Change in one-way work and school commute travel time
High Injuries	To measure transportation safety improvements, we determine which projects and programs included in the investment and vision scenarios are likely to include treatments shown to be effective at improving safety. We identify the EPCs where those treatments will be implemented and qualitatively evaluate their potential effect.

Four of the six metrics shown in Table 3 can be measured using the SFCTA's activity-based transportation demand model, SF-CHAMP. Thresholds to measure progress for these metrics are shown in Table 4. In other words, if the number of reachable jobs increases by 10%, this indicates an improvement in job access.

Table 4: Improves/Degrades thresholds for metrics measured with SF-CHAMP

	TRAFFIC EXPOSURE	JOB ACCESS	DRIVING MODE SHARE	COMMUTE TRAVEL TIMES
Improves	-2%	10%	-2%	-2%
Degrades	2%	-5%	2%	2%

1 Traffic Exposure is a proxy for measuring vehicle related pollution, as electric vehicle adoption rates between 2022 and 2050 will affect some vehicle rated pollution levels. Noise pollution and pollutants such as brake dust with known negative health impacts will still be created by electric vehicles

SF-CHAMP was not used to measure investment plan impacts to transportation costs or safety. These needs were measured qualitatively, as described below.

High Transportation Costs

The San Francisco Transportation Plan funds programs with the explicit goal of reducing transportation costs for San Franciscans that are most vulnerable to increasing transportation costs. These programs and their collective impact are reviewed in the following section.

High Injuries

SFTP 2050 safety benefits were assessed qualitatively using existing research on the safety benefits of specific investments. SFTP projects and programs that include improvements known to reduce the incidence of collisions were considered to have an impact on neighborhood safety.[1] Individual EPCs were scored based on the prevalence and effectiveness of safety improvements likely to be implemented within their boundaries.

Equity Analysis Findings for SFTP 2050

The SFTP investment plan addresses many of the needs identified through the 2022 Transportation Expenditure Plan Equity Priority Community Needs Analysis. SFTP investments will reduce traffic exposure and create infrastructure safety benefits within central EPCs which disproportionately suffer from pollution and transportation related injuries. Neighborhoods further from downtown see improved job access and reduced auto mode share, which are identified needs in those communities. Commute times are reduced for both transit and driving commutes. When analyzing commute trips by all modes, the average trip gets slightly faster for some neighborhoods and remains the same for others. This modest shift may reflect that transit is being used for more commutes.

The SFTP appears to benefit the Oceanview-Ingleside EPC less than other EPCs. Additional investigation into the types of projects and programs that could benefit Oceanview-Ingleside neighbors is needed in future technical analyses and transportation planning efforts, including transit or express bus service changes.

Table 5 shows the change for each evaluation metric by EPC neighborhood between the Baseline Scenario and the Investment Scenario. Cells are colored in green when the metric responds to an identified need for a particular EPC neighborhood.

1 http://www.cmfclearinghouse.org/ ; https://dot.ca.gov/-/media/dot-media/programs/local-assistance/documents/hsip/2020/lrsm2020.pdf

While the Investment Plan makes progress on many of the known EPC needs, San Francisco's transportation needs exceed available revenues in the Investment Plan. The SFTP Vision Plan includes potential new revenues which can be prioritized to further close equity gaps in EPC communities, using this analysis as a guide.

Table 5: Change in Key Equity Metrics for Equity Priority Community (EPCs)

EPC	TRAFFIC EXPOSURE	JOB ACCESS	DRIVING MODE SHARE	COMMUTE TRAVEL TIMES	INFRASTRUCTURE SAFETY BENEFIT
Chinatown	**-5%**	+6%	-5%	-1%	**HIGH**
Tenderloin	**-5%**	+1%	-4%	NO CHANGE	**HIGH**
Western Addition	**-3%**	-2%	-3%	NO CHANGE	**HIGH**
Inner Mission	**-4%**	+2%	-2%	NO CHANGE	**HIGH**
Bayview	-4%	**+17%**	**-2%**	+1%	**HIGH**
Excelsior/Outer Mission	**-4%**	**+25%**	-1%	**NO CHANGE**	MEDIUM
Visitacion Valley	-4%	**+41%**	**-1%**	**NO CHANGE**	MEDIUM
Oceanview-Ingleside	-5%	**+9%**	**-1%**	**+1%**	MEDIUM
Treasure Island	-6%	**+81%**	**-25%**	**-23%**	MEDIUM
Richmond	-1%	**+45%**	**-2%**	**-3%**	MEDIUM

Although the SFTP Equity Evaluation focused on impacts to EPCs within San Francisco, the impacts on specific citywide and regional populations were analyzed to understand changes to job access, mode share, and commute times. Table 6 shows that the SFTP investment scenario has a positive impact on these populations for three metrics modeled using SF-CHAMP.

Table 6: SFTP Investment Plan Impacts on Citywide and Regional Populations

	JOB ACCESS	DRIVING MODE SHARE	COMMUTE TRAVEL TIMES
All San Francisco Residents	+8%	-2%	-1%
All Regional*	+1%		
San Francisco: EPC residents (citywide)	+6%	-3%	-2%
Regional Non-SF: EPC residents*	+1%		
San Francisco: Low-income residents (citywide)	+6%	-2%	-1%
Regional Non-SF: Low-income residents*	+1%		

*Regional transit job access is defined as jobs within 75 minutes on transit

IMPACTS ON TRANSPORTATION COSTS

The SFTP Includes targeted policies and programs to reduce costs for low-income households specifically. Examples of these programs and policies include:

- **Free Muni for Youth:** the SFTP fully funds the SFMTA's current Free Muni for Youth pilot program for the 30-year plan period, ensuring that children under the age of 18 continue to have free access to public transit.
- **Treasure Island Affordability Program:** The Treasure Island Tolling Program could include an affordability program to offer low-income San Franciscans and existing island residents a transit pass and toll exemptions or discounts.
- **Regional Transit Fare Coordination:** San Francisco is working with the region on an effort (Seamless Bay Area) to coordinate and integrate transit fares. This effort is being led by the Metropolitan Transportation Commission and could lead to a more affordable transit network by providing free or reduced-cost transfers.

Some of the travel demand management projects included in the SFTP would include a charge on driving private vehicles during congested times and in congested parts of the network – see the 101/280 Managed Lanes and Bus Project and the Downtown Congestion Pricing Study (DTCP). Each of those project development processes has its own equity analysis and affordability program intended to minimize financial burden on low-income travelers, particularly those with lower transit access. For example, the DTCP Study found that means-based discounts and exemptions for low, very low, and moderate-income travelers are important for meeting equity goals and metrics. Also, the 101/280 Managed Lanes and Bus Project will analyze non-priced managed lanes options (i.e., High Occupancy Vehicle / Bus Only lanes).

Taken together, these policies and programs should have a positive impact on transportation costs citywide, specifically for low-income populations for whom cost is a barrier to mobility.

Attachment A. Source Data for Identifying Key Equity Metrics by Equity Priority Community (EPCs)

The EPC needs shown in Table 2 are based on data gathering and analysis conducted for the **Equity Assessment for the 2022 Transportation Expenditure Plan**. Table 7 below provides a summary of the specific metrics used and original source data.

Table 7: Data source used for EPC needs identification

	HIGH TRANSPORTATION COSTS	EXCESS POLLUTION	LOW JOB ACCESS	HIGH DRIVING MODE SHARE	LONG COMMUTE TRAVEL TIMES	HIGH INJURIES
Metric Detail	Specific metric used is transportation costs as a percentage of household income. EPCs flagged as having high transportation costs are those that had census block groups with the highest deviations from the citywide mean percentage.	Specific metric used is elevated risk of developing cancer due to exhaust and pollution.	Specific metrics used were jobs accessible by a 45-minute transit trip and 30-minute automobile trip. EPCs flagged as having low jobs access are those in which job access is far more accessible by automobile than by transit.	Specific metric used is drive alone rates by origin district.	Specific metric used is average travel time by origin.	Specific metric used is bicycle and pedestrian collision data.
Original Source Data	"2020 Transportation," Esri and Bureau of Labor Statistics	San Francisco Citywide Health Risk Assessment: Technical Support Documentation, accessed at **www.sfdph.org/dph/files/EHSdocs/AirQuality/Air_Pollutant_Exposure_Zone_Technical_Documentation_2020.pdf**	ConnectSF Statement of Needs, 2015 base year analysis, accessed from **www.connectsf-jobsaccessibility.sfcta.org**	ConnectSF Statement of Needs, 2015 base year analysis	ConnectSF Statement of Needs, 2015 base year analysis, accessed from **connectsf-traveltime.sfcta.org**	Statewide Integrated Traffic Records System (SWITRS) accessed at **safety.sfcta.org**

DETERMINING KEY NEEDS FOR TREASURE ISLAND AND THE RICHMOND DISTRICT EPCS

The Equity Assessment Report analysis used EPC definitions from 2017 which did not include the Richmond District EPC. The Richmond District EPC was added during an update of the EPC map in 2021. In addition, the Equity Assessment Report does not identify Treasure Island as a separate EPC because it is part of the SoMa EPC. For the purposes of the SFTP, staff reviewed past data sources to identify key needs for these EPCs neighborhoods.

Richmond

Based on data available in the 2022 Transportation Expenditure Plan Equity Assessment Report, staff identified Low Jobs Access, High Driving Mode Share, and Long Commute Travel Times as transportation needs for the Richmond district EPC.

Treasure Island

Based on data available in the 2022 Transportation Expenditure Plan Equity Assessment Report and other existing data sets from past studies, staff identified Excess Pollution, Low Job Access, and Long Commute Travel Times as transportation needs for Treasure

Island. Drive Alone rates specifically for Treasure Island are not available in the Equity Assessment Report and the original ConnectSF data source because the data for Treasure Island is combined with South of Market. Staff used the **Treasure Island Demand Model Analysis Report For years 2025, 2030, and 2035** as an alternative data source. The 2025 model run in this report estimates that 65% of trips on and off the island would be by auto (combined drive alone and carpool). For this reason, staff included High Driving Mode Share as a key equity metric for Treasure Island.

SFTP 2050: APPENDIX E

Public Outreach Summary

1. Executive Summary

The San Francisco Transportation Plan (SFTP) is the 30-year long-range investment plan for the City of San Francisco. The plan prioritizes project and program investments and is informed by existing city and regional plans such as ConnectSF, San Francisco's Climate Action Plan, and Plan Bay Area 2050. SFTP builds on these plans to identify investment opportunities for multimodal transportation projects and programs. To inform the planning process, the San Francisco Transportation Authority (SFCTA) engaged with communities, with a focus on Equity Priority Communities (EPCs), to gather input on their priorities for transportation investments.

The team used a combination of three outreach methods to connect with the community:

- an online, multilingual survey,
- community presentations, and
- a public Town Hall.

To promote participation in the planning process, the team contacted community groups cross the city, including groups representing Equity Priority Communities (EPCs), partnered with community-based organizations (CBOs) to hold meetings and promote the survey, ran multilingual Facebook ads, worked with the SFCTA Board and Community Advisory Committee to promote the survey, and highlighted the SFTP on the SFCTA website, in the eNewsletter, and in emails to past outreach participants.

Using these outreach methods, the team collected 533 survey responses, gave presentations to 13 CBOs, and hosted one public Town Hall. Key findings that emerged from outreach include the following:

- Transit investments are a clear priority for participants; many highlighted their preference to prioritize transit service expansion, increase reliability, and restore service to previous levels and previously existing lines.
- Equity and affordability are a key concern amongst participants, many of whom mentioned they would like to see improved affordability across all modes to reduce barriers for low-income residents.
- Although not the highest priority for funding, many participants mentioned that they would like to see investments in safety and active transportation projects.

- Participants also mentioned that they would like to see new major rail projects and a more integrated transit system that connects to other transit systems across the region, such as BART and Caltrain.
- Perceived physical safety was a concern for many participants, noting that interventions such as pedestrian scale lighting and traffic enforcement would promote a greater sense of safety and encourage non-vehicular travel.
- Transformative freeway projects, while presented as an option in the survey, were found to be the lowest priority for many participants and stakeholders despite there being previous interest in freeway removals and other projects that reduce vehicle capacity.
- The importance of project delivery and accountability was also mentioned by stakeholders; they would like a more transparent approach to communicating project impact, potential mitigation efforts, and return on investment.

A second round out outreach was conducted in the Fall of 2022 to share findings from the previous round of outreach and the draft SFTP Investment and Vision Plan.

2. Introduction

The San Francisco Transportation Plan (SFTP) is long-range investment and policy plan for multimodal transportation projects, programs, and capital investments in the City of San Francisco over a 30-year horizon. The SFTP includes growth and revenue projections that are based on MTC's regional long-term forecasts developed through Plan Bay Area 2050 and draws from ConnectSF.

Outreach sought to gather input from the community to inform the SFTP's priorities for investing discretionary funding. Equity was the main consideration for the promotion of this planning process, with an emphasis on engaging directly with Equity Priority Communities (EPCs). The team developed a stakeholder list of community-based organizations (CBOs) that represented each San Francisco district and conducted as many in-language presentations as possible to these organizations. Community members were also able to share their input via an online survey and a public Town Hall. The following sections of this outreach summary include:

- Summary of Engagement Tools
- Summary of Publicity Tools
- Summary of Outreach Findings

3. Engagement Tools

Gathering feedback from every district in San Francisco was key to developing a Transportation Plan that reflects the priorities of San Francisco's diverse residents. The project team used a variety of tools and strategies to connect with residents across San Francisco. An emphasis was placed on gathering feedback from EPCs and monolingual, non-English-speaking San Francisco residents. The sections below elaborate on the engagement tools and strategies used for this project.

SURVEY

A multilingual, illustrated survey was the primary tool used to share information about the SFTP with members of the public and gather their feedback about investment priorities for both expected discretionary funds and potential revenue coming from new sources.

Knowing that San Francisco residents are busy, the SFCTA team developed a survey that included additional context upfront to quickly bring participants up to speed on previous work and provide context about the goals of the SFTP and funding sources. The background on previous work included a description of the ConnectSF Vision and community engagement findings. It also identified known investment priorities based on the ConnectSF Statement of Needs, Transit Strategy, and Streets and Freeways Strategy; these include maintaining transit and road assets, resilience and electrification, the Five-Minute Network, improvements to the express bus and regional network, renewing and modernizing the existing rail system, and additional rail to San Francisco's busiest places. Providing this baseline understanding of existing priorities allowed participants to provide more meaningful feedback to questions to the survey's questions.

The survey asked the following questions:

1. The SFTP will advance city priorities including safe streets, active transportation, and managing congestion. There is limited discretionary revenue that we have the flexibility to be put towards any of our priorities. In rank order, how would you prioritize spending this limited discretionary revenue?
    - O Focus on increased bus service: Increase transit service beyond what was provided before the pandemic
    - O Reducing the maintenance backlog: Improve reliability by reducing the number of vehicles that are out of service
    - O Focus on transit improvements and expansion: Expand the transit system with new stations and/or transit lines, and improve existing stops and stations
    - O Invest in a blend of all modes and priorities, rather than focusing on transit: Spread investments across walking, biking, safety and education programs, maintaining and managing the street and freeway network, and transit.

2. With potential new revenues we can advance the next generation of transportation. In rank order, what would you advance with potential new revenues?
   - O Transit investments to improve affordability, expand bus and Muni metro service, and reduce the maintenance backlog
   - O High-quality protected bike lanes across the city by increasing investments in the active transportation network to create
   - O Major freeway redesign projects to reconnect communities and create new land use opportunities
   - O New major rail projects to create better connections within San Francisco and the region
   - O Other.
3. Please share any additional ideas you have for what we should aim to achieve through our long-term investment strategy
4. The survey also collected demographic information about the survey respondents, including race and ethnicity, gender identify, annual household income, and home zip code.

The survey was featured prominently on the SFCTA website and information was shared on SFCTA social media platforms and via email with their extensive list of participants from previous phases of the project. The survey also was promoted to the public through a blogpost, email, and through CBO partnerships. The SFCTA team reached out to 45 community-based organizations. CBOs were offered a $300 stipend to post pre-written and illustrated social media posts in a variety of languages depending on the needs of their members. CBOs were encouraged to adapt the language as needed to better fit their social media voice. Of the 45 CBOs, 10 that represent key communities across the city shared information about the survey.

Some CBOs, particularly in Districts 4, 5, and 10, declined the stipend for promotion of the survey via their social media channels due to outreach fatigue amongst their members. They noted that there had been several recent requests from various San Francisco agencies to gather feedback from members, specifically related to long-range transportation planning. The project team acknowledged this challenge and conducted outreach to additional CBOs to promote the survey, particularly in EPCs.

Finally, to boost participation from Spanish and Chinese speakers, the team placed Facebook ads in Spanish and Traditional Chinese to target multilingual or monolingual Spanish and Chinese speakers. Ads were also run in the Richmond Review/Sunset Beacon, Wind Newspaper, San Francisco Bay View, and El Tecolote.

COMMUNITY PRESENTATIONS

The team hosted community presentations to bring together members of EPCs, provide them with more detail about the SFTP, and engage in conversation about their opinions on the survey questions. All presentations were hosted virtually via Zoom, utilizing a 15- to 45-minute presentation deck depending on time allotted. Organizations that accommodated standalone 45-minute-long presentations for their members were given $750 stipends. The SFCTA team reached out to a total of 45 CBOs, 13 of which agreed to accommodate the SFTP presentation. The team conducted three monolingual, non-English presentations: one in Spanish to La Raza Community Resource Center, and two in Cantonese to Community Youth Center of San Francisco and Self Help for the Elderly.

The team gave presentations to the following CBOs:

- Central City SRO
- Community Youth Center of San Francisco (CYC SF)
- Excelsior Action Group
- La Raza Community Resource Center
- North Beach Neighbors
- People of Parkside Sunset (POPS)
- Potrero Boosters and the Dogpatch Neighborhood Associations' joint Livable Streets Committee
- San Francisco Bicycle Coalition
- San Francisco Sierra Club Transportation Committee
- San Francisco Small Business Commission
- San Francisco Transit Riders
- Self Help for the Elderly
- SF Youth Commission

The team contacted the following CBOs, but they either did not respond or declined to participate:

- A. Philip Randolph Institute San Francisco (APRISF)
- American Indian Cultural District of San Francisco
- BAYCAT
- Bayview Merchants Association

- Bayview Opera House
- Catholic Charities
- Chinatown Community Development Center (CCDC)
- Coalition of San Francisco Neighborhoods
- Coleman Advocates for Family and Youth
- ConnectSF Futures Task Force
- El Centro Bayview
- Fillmore Merchant and Neighborhood Collaborative
- Fillmore Merchants Association
- Haight Ashbury Neighborhood Council
- Inner Sunset Park Neighbors
- Japantown Community Benefit District
- Japantown Task Force
- Marina Community Association
- Parents for Public Schools
- PODER
- Russian American Community Services
- San Francisco Council of District Merchants Associations
- San Francisco Human Rights Commission
- San Francisco Interfaith Council
- San Francisco Labor Council
- Senior and Disability Action
- SF Chamber of Commerce
- SoMa Pilipinas
- Sunset Neighborhood Beacon Center
- Visitacion Valley Community Center
- Walk SF
- Young Community Developers

GENERAL PUBLIC TOWN HALL

The SFTP Town Hall was an opportunity for community members to learn more about the SFTP and provide input on their priority investment categories. The Town Hall followed a similar format to the community presentations but was slightly longer and more detailed. It consisted of a presentation about existing work and investment categories followed by a conversational Question & Answer session during which participants were encouraged to share the "why" behind their investment priorities. During this event, the team asked identical questions to those asked in community presentations and in the survey. While community presentations were limited to members of the CBOs that co-hosted them with the SFCTA, the Town Hall was open to anyone who wanted to participate.

The Town Hall was publicized through the SFCTA website, eNewsletters, and social media, as well as through social media and eNewsletters of CBO partners. The Town Hall was conducted on the evening of Thursday, April 28, 2022, via Zoom to make it safe and accessible to as many people as possible. The meeting was conducted in English, Spanish, and Chinese (both Cantonese and Mandarin interpreters were available). Approximately 15 participants joined the meeting, all of whom were English speakers.

4. Publicity Tools

The SFCTA team deployed several publicity tools to encourage participation in the SFTP planning process and solicit feedback on investment priorities. Publicly tools used included:

A list of community stakeholders that focused on EPCs across the city. This list formed the foundation of the team's targeted outreach, with the aim of elevating perspectives that may not have historically been included in the planning process.

Community messengers. The SFCTA team offered stipends to CBOs in exchange for sharing posts on their social media platforms about the SFTP survey and Town Hall. Thirteen organizations shared messaging about SFTP engagement opportunities, although some declined the stipend. Organizations included:

- Central City SRO
- Community Youth Center of San Francisco (CYC SF)
- Excelsior Action Group
- La Raza Community Resource Center
- North Beach Neighbors
- People of Parkside Sunset (POPS)
- Potrero Boosters and the Dogpatch Neighborhood Associations' joint Livable Streets Committee
- San Francisco Bicycle Coalition
- San Francisco Sierra Club Transportation Committee
- San Francisco Small Business Commission
- San Francisco Transit Riders
- Self Help for the Elderly
- SF Youth Commission

Multilingual Facebook ads. To boost participation from Spanish and Chinese speakers, the team placed Facebook ads in Spanish and Traditional Chinese that linked to the project page and survey.

Partner messengers. SFCTA staff requested that members of the SFCTA Board and the SFCTA Community Advisory Committee share information about the survey and Town Hall on their social media platforms.

SFCTA website. Project information was hosted on the SFCTA website at SFCTA.org/SFTP. The page served as a clearinghouse for information about the project. It included background information on the SFTP development process presented in accessible language, detailed graphic representations of the SFTP Statements of Needs, links to past presentations, and other key resources. The website also linked to the multilingual survey and provided information about joining the digital Town Hall.

SFCTA eNewsletter and emails to past participants. The SFTP was featured prominently in the SFCTA eNewsletter. Additionally, the team sent emails promoting SFTP engagement opportunities directly to individuals who had participated in the development process, including ConnectSF, and indicated they would like to continue their participation. Finally, the team sent an email to all Futures Task Force members inviting them to participate in a special presentation and discussion with SFCTA staff.

Local Newspaper Ads. Ads promoting participation in the survey and Town Hall were run in the Richmond Review/Sunset Beacon, Wind Newspaper, San Francisco Bay View, and El Tecolote.

OUTREACH CHALLENGES

The team encountered the following challenges during outreach:

- **Outreach fatigue.** When reaching out to dozens of CBOs across the city to offer paid partnership opportunities (social media and presentations), the team heard repeatedly that CBOs had received several recent requests from various San Francisco agencies to gather feedback from members, specifically related to long-range transportation planning. Several organizations declined to participate as a result.
- **Ongoing Concerns about COVID Safety.** COVID-19 variants and ensuing surges made in-person outreach, at times, unsafe. However, the project team recognizes that for some communities in-person meetings are preferable to digital presentations. The team followed best practices for social distancing, as outlined by the CDC, and offered CBOs the option of in-person meetings when it was safe to do so.
- **Lack of participation from the Futures Task Force.** As noted above, all members of the Futures Task Force (FTF) were invited to participate in a special presentation and conversation with SFCTA staff. However, no members of the FTF attended the digital meeting. The team does not know why there was a lack of participation and can only speculate that the topic was not attractive, was not held at convenient time, or members of the FTF no longer wish to participate, or some combination of the above.

5. Summary of Key Findings

KEY TAKEAWAYS

Feedback shared by survey respondents and meeting participants highlighted six key themes. The themes were identified because they were mentioned by multiple stakeholders and community members via the survey and community meetings.

Theme 1: Transit Service Increases and Transit Reliability, and Expansion Improvements

- Transit service increase, reliability, expansion, and improvements were a high priority for most survey respondents and a large share of people who participated in the public presentation outreach sessions.
- Participants specifically mentioned that they would like to see increased and restored bus service that is more reliable and on-time.

Theme 2: Affordability and Equity

- Survey and public meeting participants stated they would like equity to be prioritized throughout the planning and implementation process.
- Affordability was also a key priority for participants, sharing they would like to see all modes made affordable, particularly for low-income travelers.

Theme 3: Active Transportation and Safety

- Participants stated that they would like to see safety and vision zero efforts receive greater funding to promote community health and active travel.
- Many participants mentioned they would like for the active transportation network to be expanded to promote mode shift and sustainable travel.
- Some participants highlighted the need for improved lighting and increasing enforcement on streets and transit to increase perceived safety.

Theme 4: New Rail for Local and Regional Trips

- Participants stated that they would like to see improved connections to the regional transit system, such as Caltrain and BART.
- Major rail projects were second highest priority for new revenue spending.

Theme 5: Project Delivery and Accountability

- Stakeholders emphasized the importance of project delivery and accountability. They would like a more transparent approach to communicating project impact, potential mitigation efforts, and return on investment.

Theme 6: Transformative Street and Freeway Projects

- Transformative street and freeway projects were found to be the lowest priority for many participants and stakeholders despite there being previous interest in freeway removals and other projects that reduce vehicle capacity.

SURVEY FINDINGS

The survey was available from April to May 2022 and collected a total of 533 total responses – 486 English, 38 Chinese, 8 Spanish, and 1 Russian. Survey responses highlighted the following key takeaways:

- Increased bus service is a top priority for discretionary revenue spending.
- Transit improvements and expansion is a top priority for discretionary revenue spending.
- Transit affordability is a top priority that community members would like to see advanced with new revenues.
- Major rail projects are the second highest priority that community members would like to see advanced with new revenues.
- In addition to the options provided in the survey, community members also shared that they would like to see stronger regional transit connections, safe and affordable active transportation options, and programs and policies to encourage mode shift.

The following sections provide more detailed findings related to the three survey questions.

Priorities for Discretionary Revenue Spending

- There is no clear top priority based on respondent input; an equal share of respondents ranked increased bus service and transit improvements and expansion as their top priority.
  - » 28% of respondents (150) said their top priority is to focus on increased bus service; 27% of respondents (145) cited this is their second priority.

- The highest number of people that ranked increased bus service as their first or second priority live in the following zip codes: 94109, 94110, 94112, 94114, 94116, 94117, and 94122; between 18 to 25 participants in these zip codes ranked this option as their first or second priority.
- The highest shares of people who ranked increased bus service as their first or second priority live in the following zip codes: 94014, 94102, 94109, 94117, and 94121; between 61% to 73% of participants in these zip codes ranked this option as their first or second priority.
- Figure 1 shows the number and share of people by zip code that ranked increased bus service as their first or second priority.

» 28% of respondents (148) said their top priority is to focus on transit improvements and expansion; 26% of respondents (140) ranked this as their second priority.

- The highest number of people that ranked transit improvements and expansion as their first or second priority live in in the 94110, 94114, and 94122 zip codes; between 20 to 25 participants in these zip codes ranked this option as their first or second priority.
- The highest shares of respondents who ranked prioritizing transit improvements and expansion as their first or second priority live in the following zip codes: 94105, 94107, 94118, 94124, 94134; between 71% to 83% of participants in these zip codes ranked this option as their first or second priority.
- Figure 2 shows the number and share of people by zip code that ranked transit improvements and expansion as their first or second priority.

• 24% of respondents (128) said their top priority is to focus on reducing the maintenance backlog; this is not far behind the other two priorities mentioned above.

• The lowest priority for survey participants is investment in a blend of all modes and priorities; only 16% of respondents (85) ranked this as their first priority, while 52% of respondents (276) ranked this either last or not at all.

Figure 1: Respondents Who Ranked Increased Bus Service as Their First or Second Choice, by Zip Code

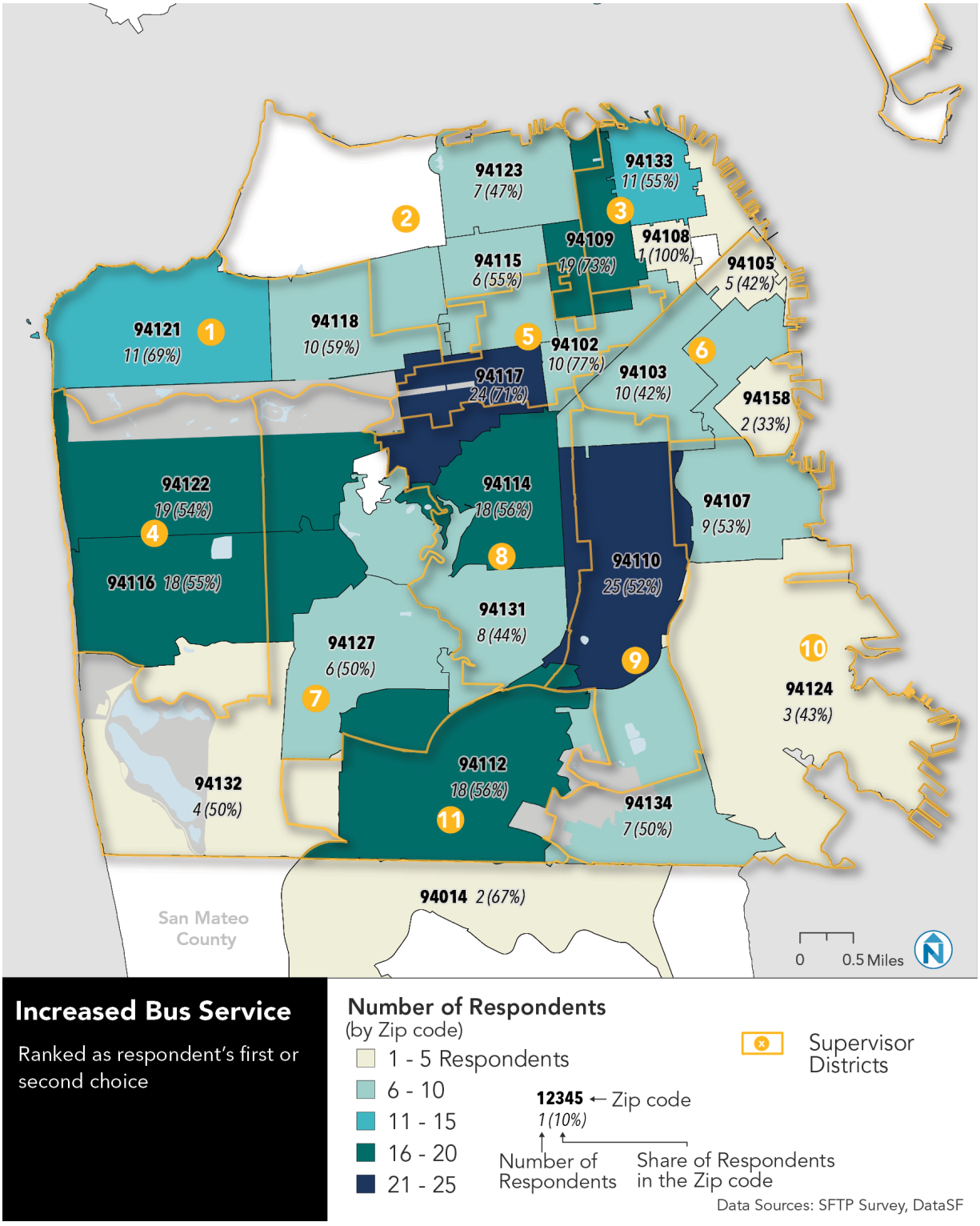
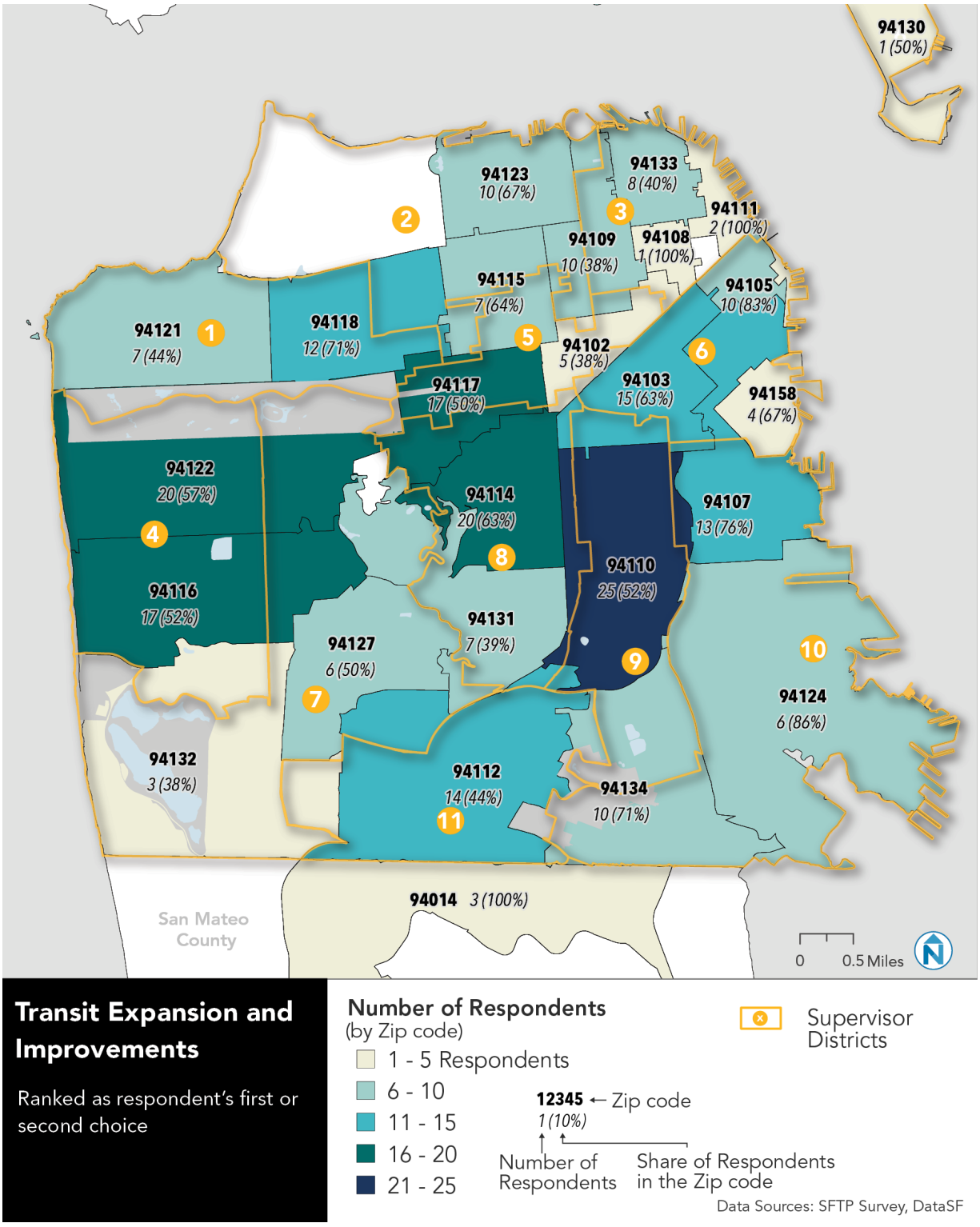


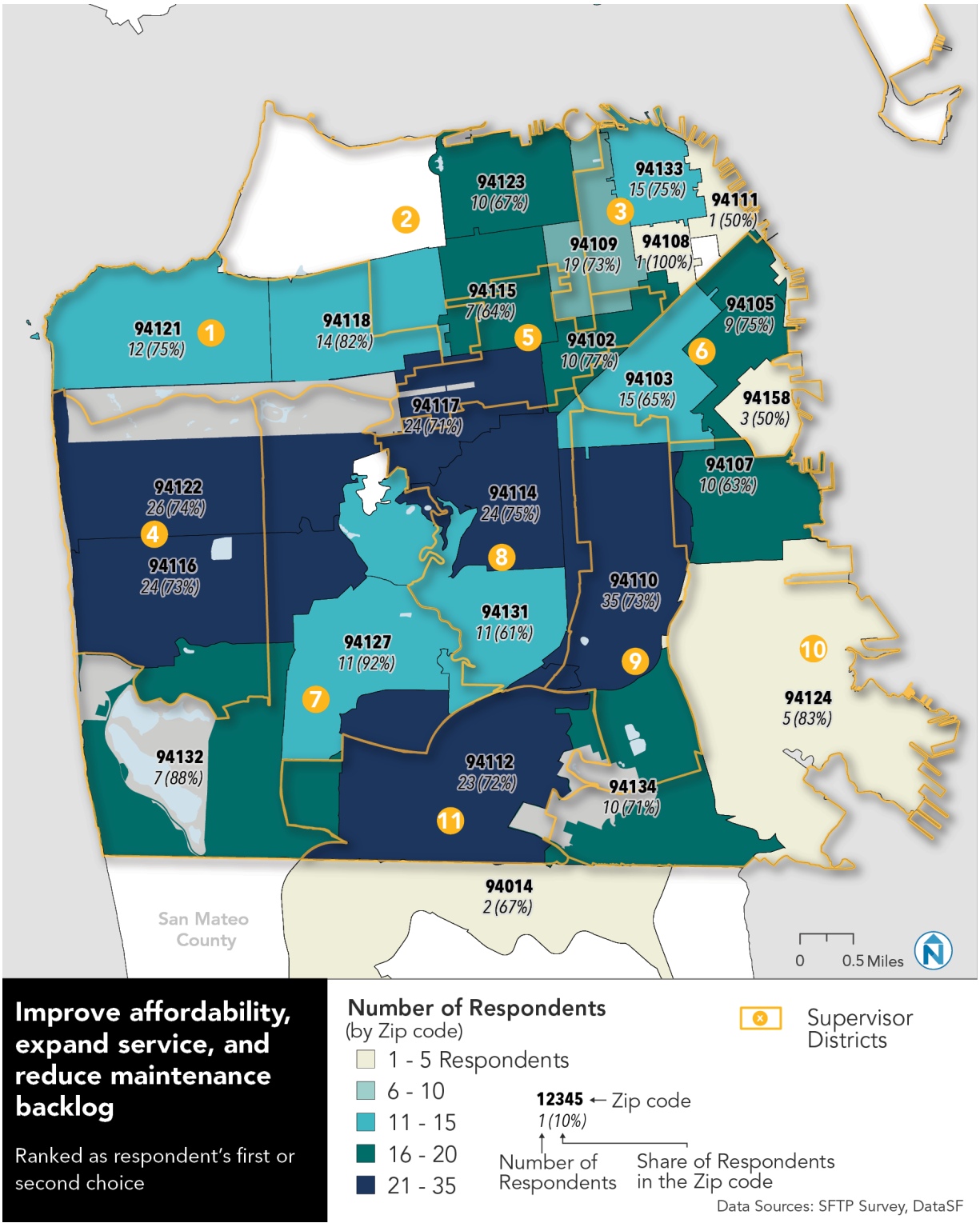
Figure 2: Respondents Who Ranked Transit Expansion and Improvements as Their First or Second Choice, by Zip Code



Priorities for Potential New Revenues

- The top priority of respondents is to improve affordability, expand service, and reduce maintenance backlog; 40% of respondents (212) said this is their top priority and 70% of respondents (373) ranked this as their first or second priority.
  - » The highest number of respondents who ranked improve affordability, expand service, and reduce maintenance backlog as their first or second priority live in the following zip codes: 94109, 94110, 94112, 94114, 94116, 94117, 94122.
  - » While many zip codes had a high share of support, the highest share of respondents who ranked improve affordability, expand service, and reduce maintenance backlog as their first or second priority live in the following zip codes: 94102, 94118, 94121, 94127, 94132; between 77% and 92% of participants in these zip codes ranked this option as their first or second priority.
  - » Figure 3 shows the number and share of people by zip code that ranked affordability, expand service, and reduce maintenance backlog as their first or second priority.
- The second priority of respondents is new major rail projects; 27% of respondents (142) said this is their top priority and 56% of respondents (300) ranked this as their first or second priority.
- 18% of respondents (96) ranked high-quality protected bike lanes as their top priority; generally, this option does not stand out as a top priority or the lowest priority.
- The lowest priority of respondents is major freeway redesign projects; 55% of respondents (293) ranked this their lowest priority or did not rank it at all, and only 8% of respondents (44) ranked this as their top priority.

Figure 3: Respondents Who Ranked Improve Affordability, Expand Service, and Reduce Maintenance Backlog as Their First or Second Choice, by Zip Code



Other Ideas the Long-Term Investment Strategy Should Focus On

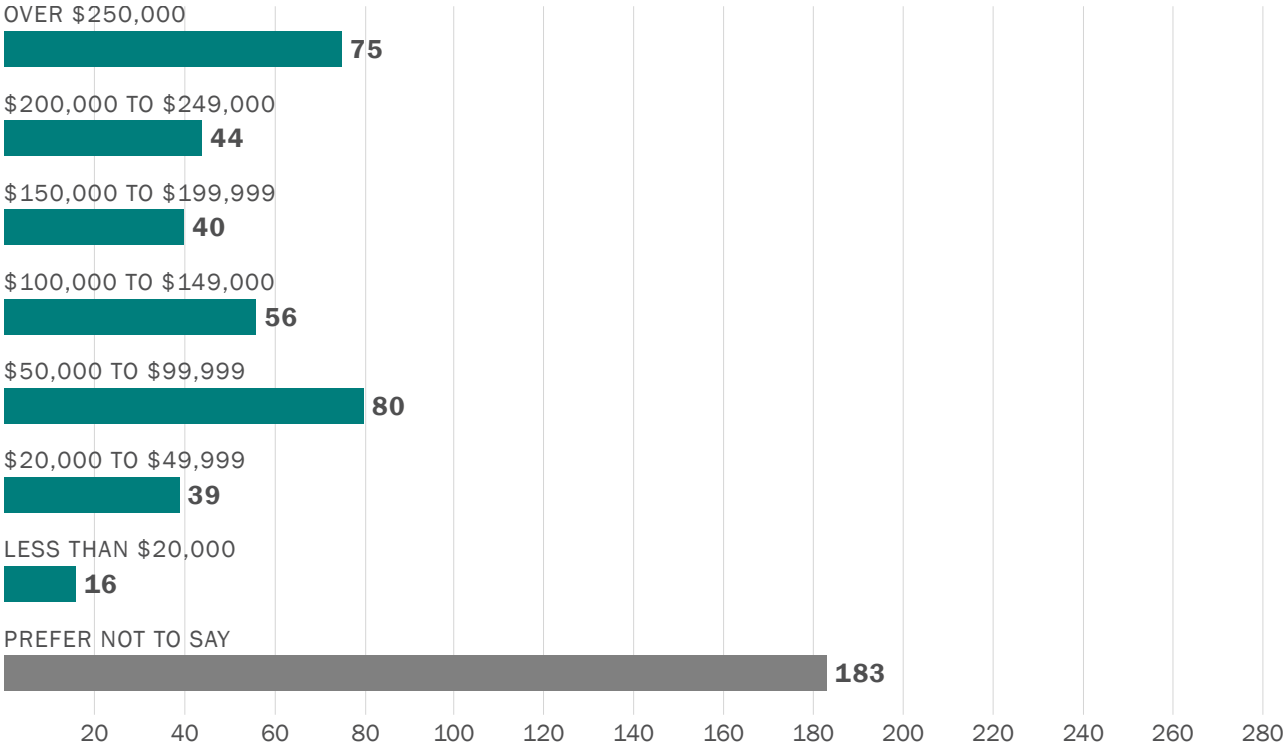
The following key themes emerged from the third, open-ended survey question:

- Many respondents shared that…
  - » Transit affordability and access is a key priority, particularly for low-income communities, people with disabilities, and older adults.
  - » A larger, more connected, and efficient transit system is a priority for them.
  - » Their priority is improving safety and walkability throughout the city.
  - » Expanding bikeshare and making it more affordable to low-income families is a priority.
  - » Increasing car-free programming to promote safe pedestrian and bicycle travel is a priority.
- Car free programs are perceived to add congestion and are a concern for residents. Some respondents shared that…
  - » They would like to see increased availability of electric vehicle (EV) charging stations and subsidies to make EVs more affordable.
  - » The implementation of Congestion Pricing in the downtown area to make transit more efficient and decrease congestion and the related environmental impacts is a priority.
  - » They would like to see stronger enforcement of bus-only lanes and bike lanes to ensure compliance, increase safety, and improve mobility.
  - » They would like to see increased parking supply and affordability, particularly near transit to encourage transit access and ridership.
  - » They would like to see greater integration with other transit systems in the region and expansion of rail services into more parts of San Francisco.
- Just a few respondents expressed…
  - » The desire for full removal of existing freeways to reduce vehicle travel and to meet long-term climate goals.

Who Responded to the Survey

The following section provides an overview of the demographics of survey respondents where available.[1] Of the respondents who provided their annual household income, the highest represented income categories were $250,000 or higher and $50,000 to $99,999 (75 and 80 total respondents respectively) (Figure 4). Most respondents (299) live in households of just one or two people (Figure 5). Most respondents were White non-Hispanic (248), followed by Asian non-Hispanic (73). Black survey respondents were underrepresented, with just six respondents (Figure 6). Nearly 50% of respondents identified as men, one-third identified as women, and 2% identified as non-binary (Figure 7). They survey reached people across the city, with a strong representation from residents who live in zip codes located in Supervisor Districts 4, 7, 8, 9, 11 (Figure 8).

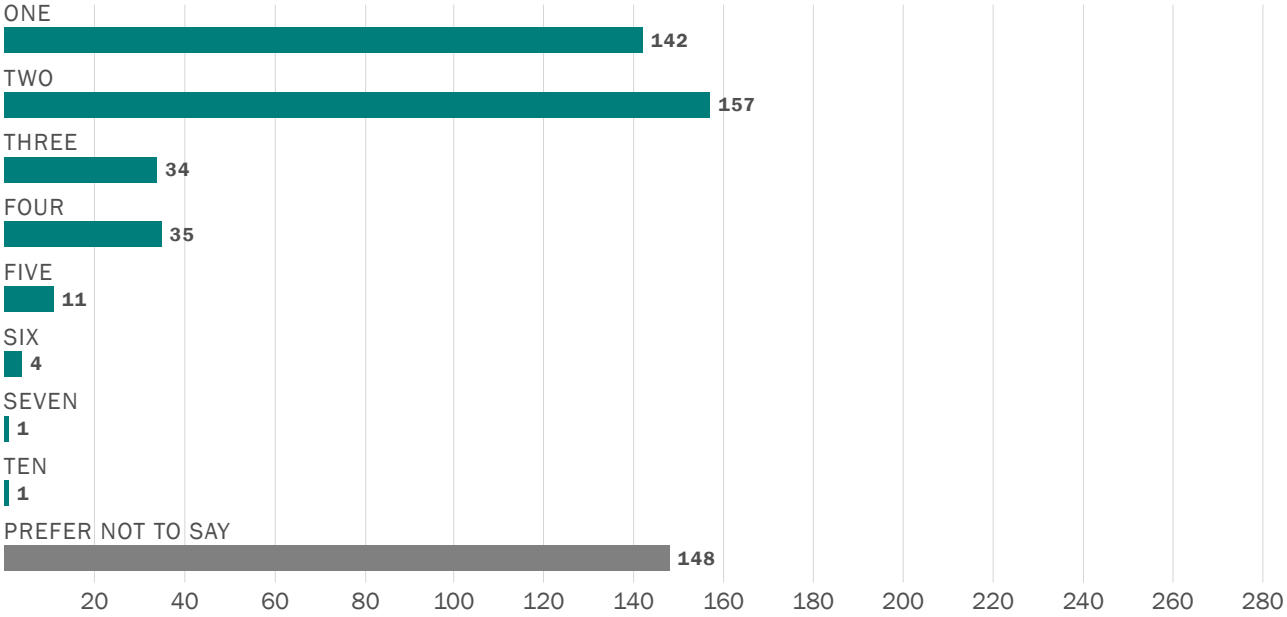
Figure 4: Annual Household Income (N=533)



Note: Respondents who did not respond to this question were grouped into the "Prefer not the say" category.

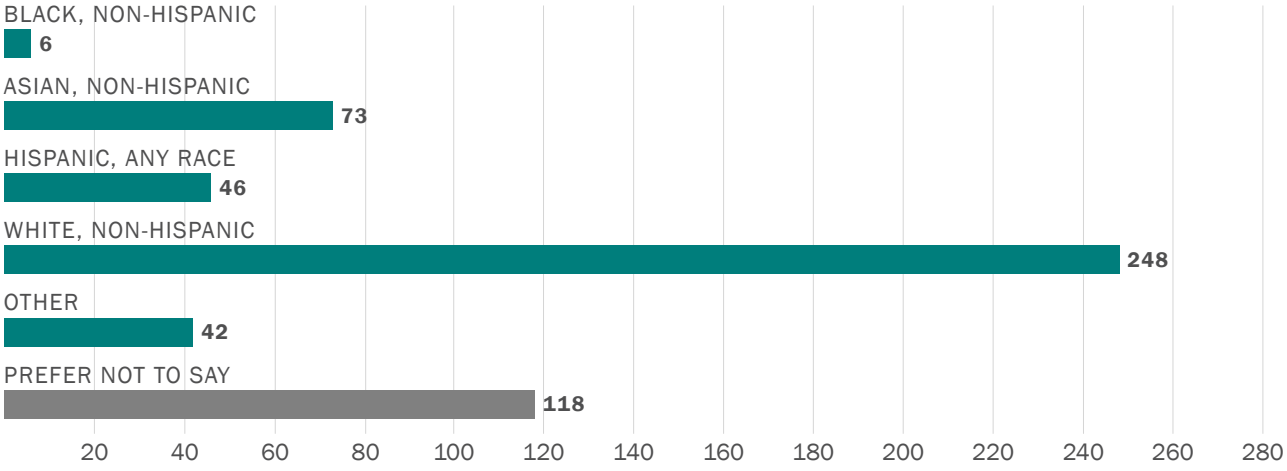
1 Many participants opted out of sharing demographic information.

Figure 5: Household Size (N=533)



Note: Respondents who did not respond to this question were grouped into the "Prefer not the say" category

Figure 6: Race/Ethnicity (N=533)

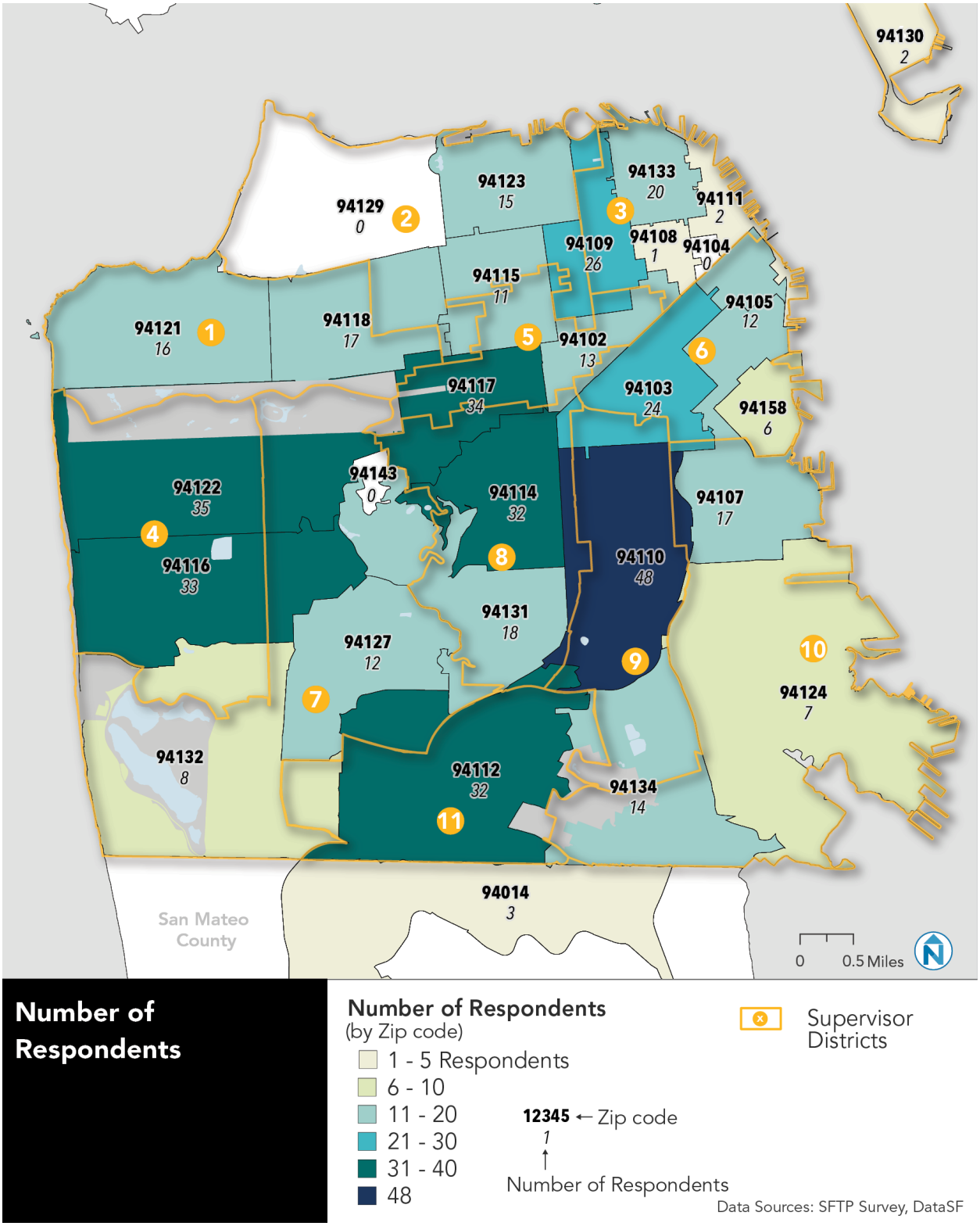


Note: Respondents who did not respond to this question were grouped into the "Prefer not the say" category

Figure 7: Gender (N=533)

Note: Respondents who did not respond to this question were grouped into the "Prefer not the say" category

Figure 8: Zip Code (N=463)



COMMUNITY PRESENTATION FINDINGS

As part of the outreach process, the team gave several community presentations. Table 1 provides an overview of the meetings, including the meeting dates and number of participants. Key themes discussed during these conversations included:

- Considerations for equity and environmental justice.
- The importance of safety and vision zero to promote active travel.
- Increased frequency of transit and resuming of transit service.
- Making streets and transit safer for riders and road users.

Table 1: Community Presentations

MEETING DATE	ORGANIZATION
3/28/2022	Small Business Commission
4/4/2022	Self Help for the Elderly
4/6/2022	San Francisco Transit Riders Union
4/14/2022	North Beach Neighbors Complete Streets Committee
4/15/2022	CYCSF
4/19/2022	Excelsior Action Group
4/20/2022	Future Task Force*
4/21/2022	San Francisco Transit Riders Funding Working Group
4/25/2022	La Raza Presentation
4/28/2022	Central City SRO
4/28/2022	SFTP Virtual Town Hall
5/3/2022	Sierra Club Transportation Committee Presentation
5/5/2022	People of Park Side Sunset
5/6/2022	Potrero Boosters and Dogpatch Neighborhood of Associations' joint Livable Streets Committee
5/9/2022	SF Bicycle Coalition

* Zero participants attended the Future Task Force meeting on 4/20/2022

The following section summarizes the feedback shared during each presentation.

Small Business Commission

- The commission expressed that it is important to make sure the public has input on the plans and to ensure equity is part of the process and final plan.
- There was concern about the impacts of construction projects and a desire to explore potential mitigation efforts.
- The commission expressed that there should be a greater understanding about the return on investment of the projects the SFCTA is seeking input on.

Self Help for the Elderly

- This engagement session did not have any key takeaways. The time was spent informing the participants on how they can access the survey.

San Francisco Transit Riders

- The Transit Riders Union noted that the Transportation Authority should seek input from environmental justice organizations.

North Beach Neighbors Complete Streets Committee

- Multiple members of the committee mentioned that there should be more investment in Vision Zero to prioritize pedestrians and not vehicles – members specifically called out treatments like speedbumps, raised crosswalks, and daylit intersections.
- Multiple members mentioned they would like to see more investments in active transportation and transit while discouraging vehicle travel (for everyone except older adults and people with disabilities).
- Some members said they would like stronger rail connection to the rest of the region.
- Multiple members mentioned they would like the 15 Muni line to return to service.

CYCSF

- Participants discussed that they would like increased bus service that is frequent and on-time.
- Participants also would like to see better connections between transit lines.

Excelsior Action Group

- Action group members mentioned they would like to see more pedestrian safety investments such as pedestrian-scale lighting.
- Members would like to see investments across all modes and improved connectivity across modes.
- Members also mentioned they would like Muni service to be expanded and more affordable.

San Francisco Transit Riders Funding Working Group

- Working group members said that transit improvements should be prioritized, specifically increased bus service, reducing maintenance backlog, and regional expansion.
- The working group also discussed improving transit affordability.

La Raza Presentation

- Participants discussed the importance of making infrastructure safer through repairs such as potholes.
- Participants shared concerns about bus bunching and safety on transit, siting poor driving and lack of security.
- Better transit options were mentioned by participants, such as the addition of high-speed rail, more express busses, and BRT.
- Participants also discussed having transportation targeted towards unhoused people.

Central City SRO

- Residents shared that the investment plan should prioritize focusing on increased bus service and reducing maintenance backlog.
- Residents shared other considerations, including universal fare-free Muni and limiting private vehicle access in larger portions of the city.

SF Youth Commission

- The commission stated that the priorities should be to increase bus service, capacity, and affordability.
- The commission also called for expansion of rail projects and better connection to Amtrak and other regional services.
- The commission recently passed a resolution calling for free Muni for people up to 25 years old.

Sierra Club Transportation Committee

- The committee shared that their priorities are increasing transit service and affordability.
- The committee also shared their support for freeway redesign projects the reconnect communities.

People of Park Side Sunset

- Participants pointed out that the Sunset/Richmond does not have access to BART and suffers from congestion.

Potrero Boosters and Dogpatch Neighborhood of Associations joint Livable Streets Committee

- The committee was largely concerned with active transportation and safety while reducing private vehicle trips.
- The committee shared that they want transit to operate safely and reliably.

SF Bicycle Coalition

- The coalition shared that their priority is to keep Muni fares low.

GENERAL PUBLIC TOWN HALL FINDINGS

On April 28, 2022, the Transportation Authority hosted a virtual Town Hall to collect feedback on funding priorities for the SFTP; 15 people attended. To guide conversation, the team used the same questions as the online survey. Respondents were asked to rank their first through fourth choice priorities for spending discretionary revenue and what they would like to advance with potential new revenues. Respondents were also able to provide additional comments that were not given as options through the two questions.

Priorities for Discretionary Revenue Spending

- 40% of respondents (6) said that their first choice is increased bus service.
- 40% of respondents (6) stated their first choice is reducing maintenance backlog.
- 20% of respondents (3) said that they would prefer a blend of all modes.
- Transit expansion was the highest ranked second choice with 40% of respondents (6) choosing this option.
- Additional responses included fare free transit and fare subsidies, mandating accessibility and equity by design, and investing in programs and projects that support mode shift.

Priorities for Potential New Revenues

- 47% of respondents (7) selected Muni affordability and expansion of transit service and reliability as their first choice, while 27% of respondents (4) chose it as their second choice.
- 13% of respondents (2) selected high quality bike lanes across the city as their first choice, while 27% of respondents (4) chose it as their second choice.
- 13% of respondents (2) chose major freeway redesign projects as their first choice, while 7% (1) chose it as their second choice.
- 7% of respondents (1) said that new major rail projects are their top priority, while 20% chose it as their second priority.
- 40% of respondents (6) chose high quality protected bike lanes as their third choice.
- Other topics mentioned by participants included addressing ADA access through Universal Design, increasing safety through infrastructure and enforcement on transit, and increasing input opportunities and transparency for large projects and plans.

6. Second Outreach Round

The final element of the SFTP outreach effort involved sharing ways that engagement had shaped the SFTP with community members, particularly those who had taken time to provide feedback on the plan.

The team used three primary methods to connect with the community:

- email updates to past participants in the engagement process,
- presentations to community groups, and
- a public Virtual Town Hall.

To publicize these engagement methods, the team emailed 89 community-based organizations, used the agency's social media channels, and placed ads in print and/or digital versions of nine local newspapers.

EMAIL UPDATES + COMMUNITY PRESENTATIONS

The SFCTA team reached out to a total of 89 CBOs to let them know that there would be a multilingual digital Town Hall held on October 6, 2022 and to offer short presentation, using the same material, to their organization at a standing meeting, if desired. Four organizations requested presentations (North Beach Neighbors, Parents of Public Schools, Potrero Boosters and the Dogpatch Neighborhood Associations' Joint Livable Streets Committee, and the West of Twin Peaks Central Council). The Sierra Club direct their members to the digital town hall.

NEWSPAPER ADS

Advertisements were placed in the following monthly papers in late September:

- El Tecolote (with note about language assistance in Spanish)
- Potrero View
- Richmond Review
- San Francisco Bay View
- Sunset Beacon
- Marina Times

Sing Tao, a local daily Chinese-language paper ran an ad for the Town Hall on Sunday, September 25.

The following papers hosted digital ads for the Town Hall, starting in late September and running through October 6:

- Noe Valley Voice
- West Portal Monthly

TOWN HALL

A multilingual, digital town hall was held on the evening of Thursday, October 6, 2022. Monolingual Cantonese and Spanish breakout rooms were made available. It was attended by 11 participants, including one Cantonese speaker.

Most of the attendees were very familiar with the SFTP draft and had specific questions related to various revenue sources and budget issues. Comment themes included:

- Understanding future transit service and funding
- Emphasizing the need to restore transit service to pre-pandemic (2019) levels.
- Understanding funding sources, unmet needs, and how the SFTP would be put into action.
- Concern about congestion on city streets and how Congestion Pricing and Transportation Demand Management fit into the SFTP.

SFTP 2050: APPENDIX F

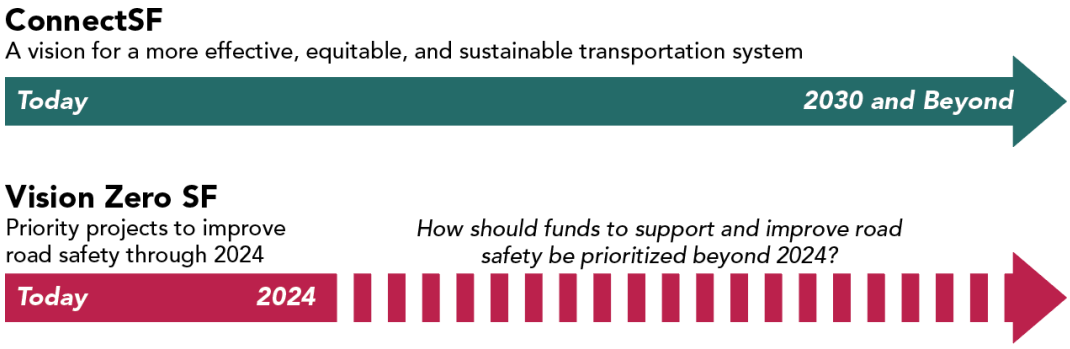
Streets and Freeways Survey Safety Preferences Findings

Executive Summary

ConnectSF is a long-term plan for creating a more effective, equitable, and sustainable transportation system for San Francisco over the next 50 years. The **Streets and Freeways Strategy** is one element of the ConnectSF effort. It recommends a series of concepts for further study and implementation which address transportation challenges and advance ConnectSF goals. The Strategy includes a set of concepts that address safety and active transportation on major roads and freeways, supporting San Francisco's **Vision Zero** policy.

The Vision Zero policy sets a goal to eliminate traffic fatalities by 2024. The Vision Zero program has been used to implement quick-build projects in areas with known safety challenges, resulting in safety improvements across much of the city's **High Injury Network**. More is needed to reach the goal of eliminating traffic fatalities. Community engagement from the Streets and Freeways Strategy and **SFTP 2050** can provide guidance for Vision Zero safety efforts and priorities beyond 2024. The alignment between ConnectSF and Vision Zero SF is illustrated in Figure 1.

Figure 1: ConnectSF and Vision Zero Alignment


ConnectSF
A vision for a more effective, equitable, and sustainable transportation system
Today
2030 and Beyond
Vision Zero SF
Priority projects to improve road safety through 2024
How should funds to support and improve road safety be prioritized beyond 2024?
Today
2024

The Streets and Freeways Strategy surveyed San Franciscans to understand support and priorities for different road safety strategies. Results showed that preferences for street safety interventions vary across the city. Paired with technical analyses and additional community engagement, the Streets and Freeways Strategy outreach findings can be used to identify and implement safety improvements that reflect community transportation needs. The results documented here reveal trends that should inform additional community engagement and strategy development. These trends should also inform future Vision Zero efforts.

KEY TAKEAWAYS

- Survey responses demonstrate that preferences for road safety improvements and strategies vary geographically.
- Reward- or incentive-based strategies that encourage transit and carpooling appear to be popular citywide.
- Traffic calming strategies were widely supported. Citywide, 75% of respondents expressed support for traffic calming strategies to reduce cut-through traffic.
- Support for more bicycle infrastructure in western parts of the city was relatively low compared with other neighborhoods and other strategies.
- Many write-in suggestions focused on safety impacts related to enforcing traffic laws and the closure of the Great Highway to vehicles.

Survey Overview

In summer 2021, the San Francisco County Transportation Authority (SFCTA) launched the Streets and Freeways Strategy Survey to learn about preferences for the future of San Francisco's major streets and freeways. Street safety improvements were one area of focus in the survey effort and survey responses can be used to inform long-term planning for road safety. The purpose of this memorandum is to analyze responses to this survey related to street safety and to understand how preferences for different types of safety improvements vary by geography. Learnings from this survey can be used to inform future neighborhood planning efforts and outreach activities, which will be needed to identify community-based solutions.

The survey was administered online during July and August 2021. It was available in four languages (English, Chinese, Spanish, and Filipino). 663 responses were collected and analyzed. The geographic distribution of these survey responses is shown in Table 1 and Figure 2.

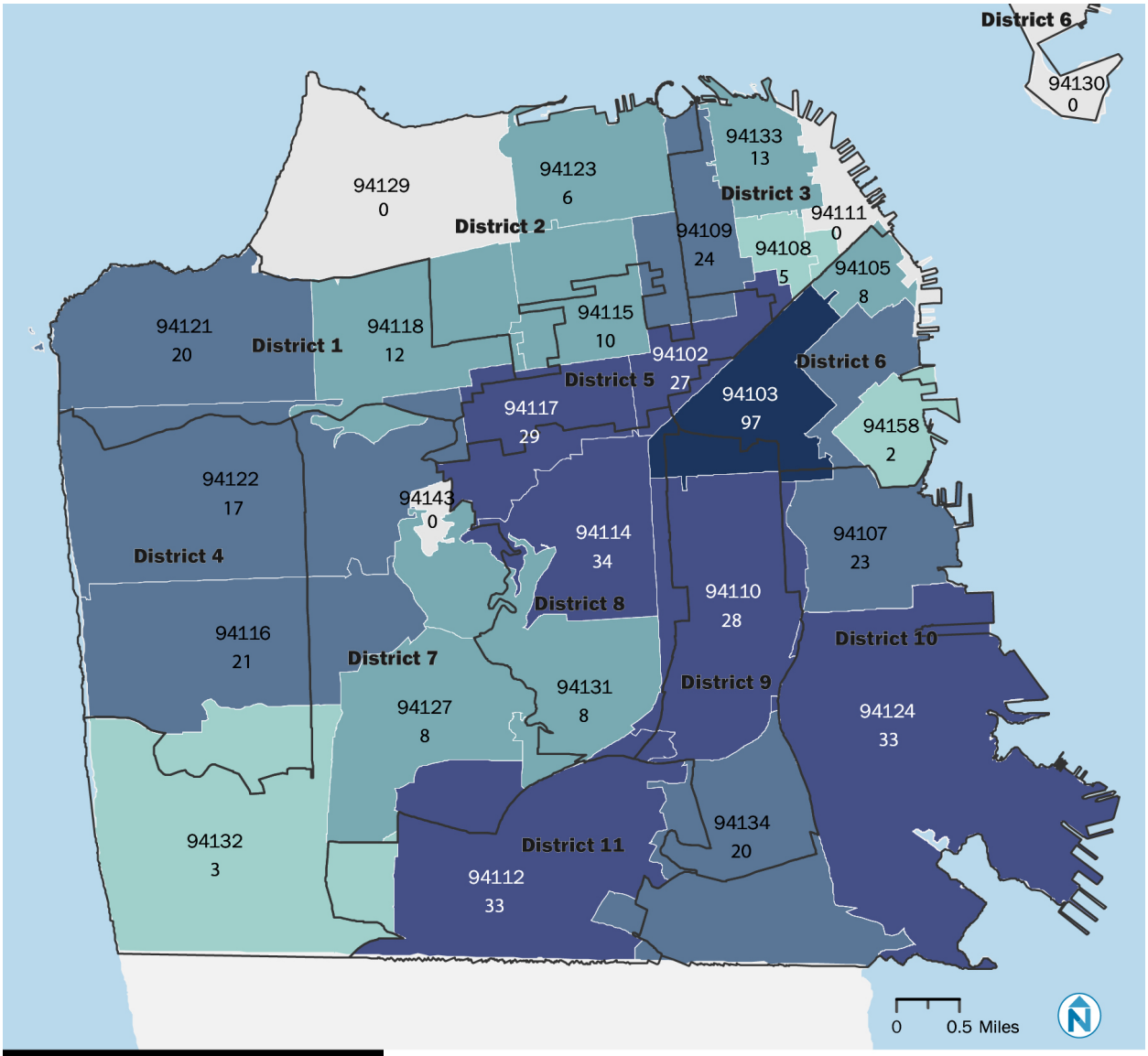
Response rates were highest in neighborhoods adjacent to Market Street and in neighborhoods near I-280 and US-101. Zip code 94103 had the highest response rate with 97 responses (14.5% of all survey responses). Responses rates were lower in neighborhoods in the southwest, north, and northeast.

Table 1: Total Survey Responses by Zip Code

ZIP CODE	NUMBER OF RESPONSES	ZIP CODE	NUMBER OF RESPONSES	ZIP CODE	NUMBER OF RESPONSES
94103	97	94118	12	94066	1
94114	34	94115	10	94402	1
94112	33	94105	8	94519	1
94124	33	94127	8	94523	1
94117	29	94131	8	94530	1
94110	28	94123	6	94611	1
94102	27	94108	5	94612	1
94109	24	94104	5	94618	1
94107	23	94132	3	94703	1
94116	21	94014	2	Other *	162
94121	20	94158	2		
94134	20	94609	2		
94122	17	94010	1		
94133	13	94015	1		

*"Other" includes all responses from zip codes outside of San Francisco and all responses that did not provide a zip code.

Figure 2: Total Number of Responses by Zip Code



Out of 657 total survey responses received, 501 provided a home zip code.

Overview of Findings from Survey Question 1

Question Text: Which of the following efforts best supports the strategies to dedicate space for efficient travel options like transit, biking, and walking?

Response Options: (select as many options as desired)

- ☐ Provide rewards and discounts for using transit
- ☐ Provide rewards for carpooling
- ☐ Provide discounts on bike and electric-bike purchases for those with low-incomes
- ☐ Install traffic calming on local streets to minimize cut-through traffic
- ☐ Manage curbs to reduce double parking, especially in bike and transit lanes
- ☐ Increase the availability of bike and scooter share
- ☐ Increase bike friendly amenities at transit stations, such as secure bike parking
- ☐ Other. Are there other strategies we should consider?

TRENDS AND OBSERVATIONS

Question 1 responses are summarized by strategy and by zip code in Figure 3, Figure 4, and Table 2.

Rewards and discounts

Providing rewards and discounts for transit, rewards for carpooling, and discounts on bike purchase (options 1, 2 and 3), received the widest geographic support. Only one zip code (94104) that had more than one survey response did not indicate support for any of these reward-based strategies. Combined support for these three reward or incentive-based strategies accounted for 37% of all strategies for which respondents indicated support. Among these three reward-based strategies, rewards for using transit received the strongest support (72%).

Bike and scooter share expansion

Support for bike and scooter expansion varied by location. Overall, 26% of respondents indicated support for increasing the availability of bike and scooter share. Support was highest in the Marina District/Cow Hollow and in Nob Hill (zip codes 94123 and 94108). Support was lower than average in some downtown neighborhoods along Market Street (12% in zip code 94102 and 18% in zip code 94103) with a high number of survey response rates.

Curb management

Managing the curb to reduce double-parking, especially in bike and transit lanes, received similar levels of support across all zip codes (17%). Support in central zip codes 94110, 94114, 94117 was slightly above average (22 – 25%).

Traffic calming

Traffic calming improvements to minimize cut-through traffic received support from 75% of survey respondents. Compared with other neighborhoods, respondents from zip code 94116 (Sunset) indicated lower support for traffic calming improvements. Some write-in responses from this zip code and other western zip codes advocated for strategies to address cut-through traffic on local streets near the Great Highway.

Other Strategies

126 respondents submitted an additional strategy for consideration. These write-in responses highlighted a range of perspectives and themes. Many respondents advocated for strategies that would de-prioritize single-occupancy vehicle use, including parking removal, congestion pricing fees, and designated car-free zones. However, many respondents also expressed a desire for strategies that prioritize drivers.

While modal preferences differed among respondents, some write-in themes cut across all modes. Respondents emphasized the importance of adequately addressing the needs of people of all ages and abilities in safety strategies. Many respondents highlighted the importance of complementing any design intervention with more extensive and effective enforcement.

Figure 3: Total Responses to the Survey Question "Which of the following efforts best supports the strategies to dedicate space for efficient travel options like transit, biking, and walking?"

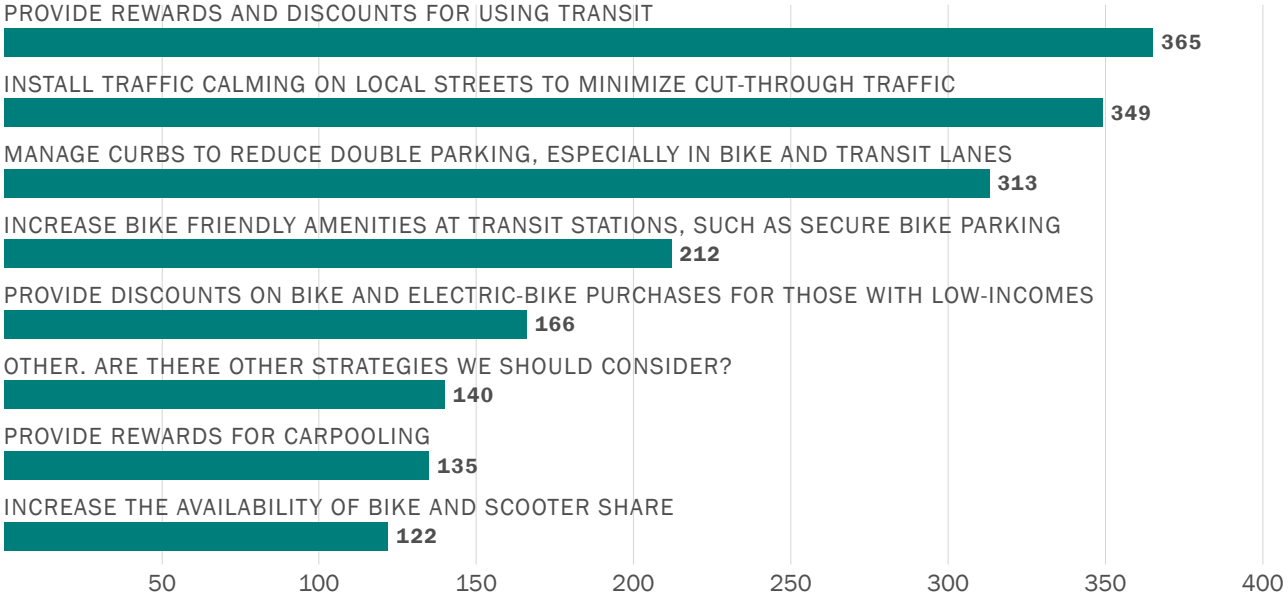
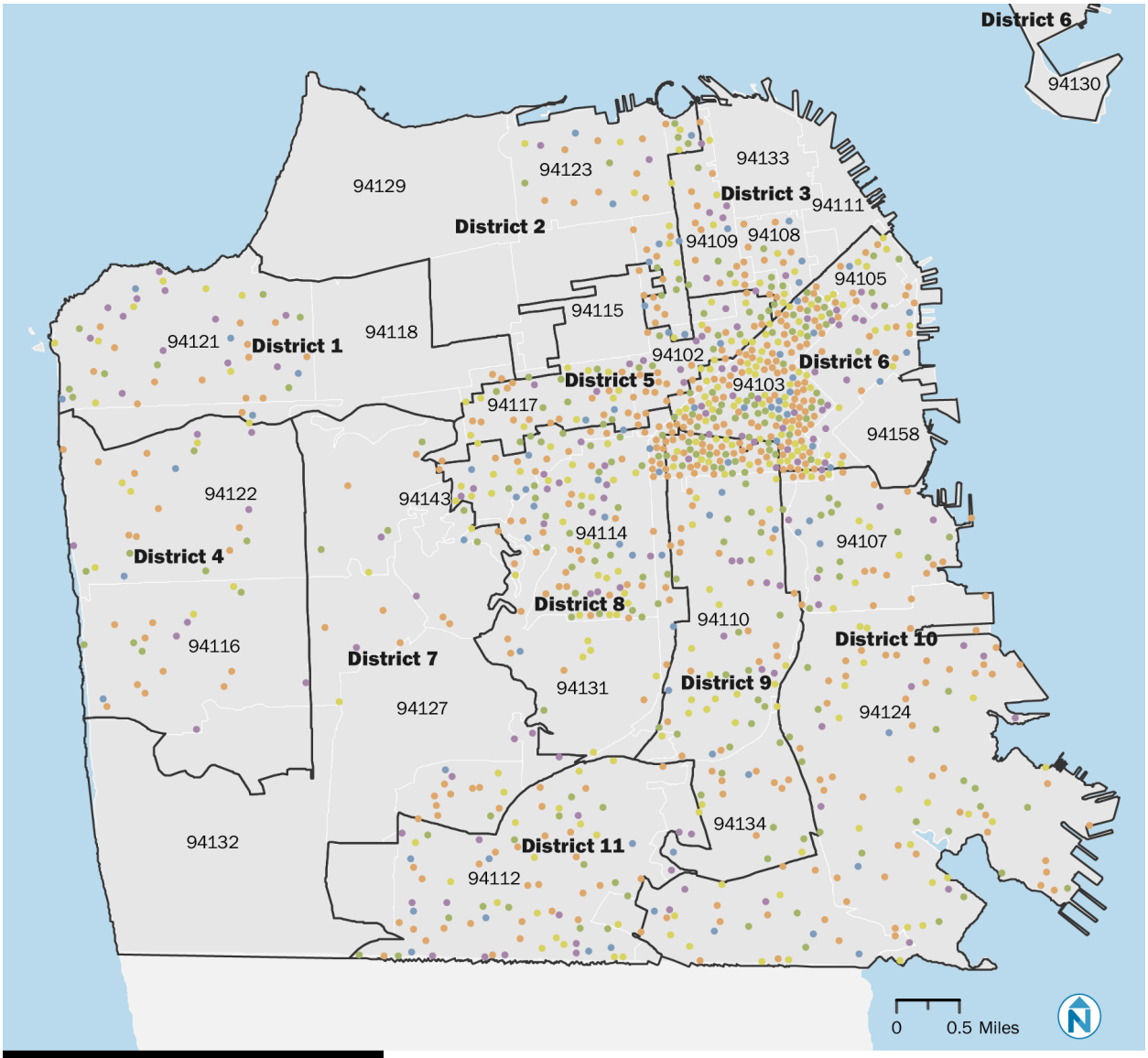


Table 2: Strategy Support and Response Rate by Zip Code

ZIP CODE	TOTAL RESPONSES	REWARDS AND DISCOUNT FOR USING TRANSIT, CARPOOLING, BIKE AND ELECTRIC-BIKE PURCHASES FOR THOSE WITH LOW-INCOMES.*	INSTALL TRAFFIC CALMING ON LOCAL STREETS TO MINIMIZE CUT-THROUGH TRAFFIC	MANAGE CURBS TO REDUCE DOUBLE PARKING, ESPECIALLY IN BIKE AND TRANSIT LANES	INCREASE THE AVAILABILITY OF BIKE AND SCOOTER SHARE	INCREASE BIKE FRIENDLY AMENITIES AT TRANSIT STATIONS, SUCH AS SECURE BIKE PARKING	OTHER
94103	97	124	61	53	17	22	6
94114	34	24	19	22	7	12	14
94112	33	37	19	16	9	12	1
94124	33	43	19	18	2	7	1
94117	29	22	19	14	7	5	13
94110	28	24	17	20	7	7	6
94102	27	29	12	14	3	9	8
94109	24	23	11	12	6	6	6
94107	23	20	11	12	6	11	7
94116	21	12	3	4	1	5	16
94121	20	13	8	8	4	12	7
94134	20	20	11	9	6	7	3
94122	17	13	6	8	3	5	6
94133	13	10	6	4	1	6	4
94118	12	8	5	5	0	4	6
94115	10	4	4	6	3	4	6
94105	8	10	5	4	1	3	1
94127	8	5	3	4	3	3	4
94131	8	7	5	2	1	4	3
94123	6	8	3	2	2	2	1
94108	5	6	2	1	3	2	0
94104	5	5	4	3	1	2	0
94132	3	3	1	2	0	1	2
94014	2	0	2	2	0	1	1
94158	2	2	2	1	0	0	1
94609	2	1	1	1	2	1	0
94010	1	1	0	0	0	1	1
94015	1	1	0	1	1	0	0
94066	1	1	1	0	0	1	0
94402	1	0	1	0	1	1	0
94519	1	2	1	0	0	0	0
94523	1	0	1	0	1	1	0
94530	1	2	0	0	0	0	1
94611	1	1	1	1	0	0	0
94612	1	1	1	0	0	0	1
94618	1	0	1	1	0	1	0
94703	1	1	0	0	1	1	0
Other*	162	174	80	60	23	50	14

***Note:** this summary table combines responses for all three reward or incentive-based strategy options into one category – as a result, some totals for this category are greater than the total number of responses.

Figure 4: Question 1 Responses by Zip Code



Q1. Which of the following efforts best supports the strategies to dedicate space for efficient travel options like transit, biking, and walking?

- Rewards and discounts: Provide rewards and discounts for people who use transit, people who carpool, or people with low incomes who purchase a bicycle or electric bike
- Traffic Calming: Install traffic calming on local streets to minimize cut-through traffic
- Curb Managment: Manage curbs to reduce double parking, especially in bike and transit lanes
- Bike and scooter share: Increase the availability of bike and scooter share
- Mobility hubs: Increase bike friendly amenities at transit stations, such as secure bike parking

Out of 657 total survey responses received, 501 provided a home zip code.
140 respondents submitted a write-in response indicating support for other strategies

Overview of Findings from Survey Question 2

Question Text: Specific to building a complete active network, how important are each of the following priorities?

Response Options: (rank each option as "Important," "Not sure," or "Less Important")

- ☐ Reduce speeds and create space on neighborhood streets to support walk and bike trips within my neighborhood or to nearby commercial areas
- ☐ Separated, high quality bike networks that help me travel between neighborhoods and to major destinations like downtown
- ☐ Make it easier to walk or bike to transit

TRENDS AND OBSERVATIONS

Responses by zip code are shown in Figure 5, Figure 6, and summarized in Table 3.

Option A:

Support for reducing speeds and creating space on neighborhood streets to support walk and bike trips was highest in central neighborhoods adjacent to highway 101 (zip codes 94103 and 94110). While the rate of support was also high in zip codes 94158 and 94132, few responses were received from those areas (2 and 3 respectively). Compared with support for Options B and C, support for Option A was relatively lower in zip codes 94107 and 94112.

Option B:

Support for separated, high quality bike networks that connect to other neighborhoods and downtown was highest in central neighborhoods along highway 101 and near BART stations (zip codes 94110 and 94103), as well as along the panhandle (zip code 94117). In some of these neighborhoods, such as zip code 94103, bicycle network connectivity is already high today. In others, such as zip code 94110, the bicycle network covers only part of the neighborhood or there are network gaps.

Support for bike network improvements was moderate in the District 1 and District 4 despite limited existing bicycle infrastructure, though the total number of responses was limited in these areas. The availability of lower-vehicle volumes on neighborhood streets that are comfortable for more types of bicyclists may be one reason for the lower level of support for bicycle improvements expressed by respondents from these areas.

Option C:

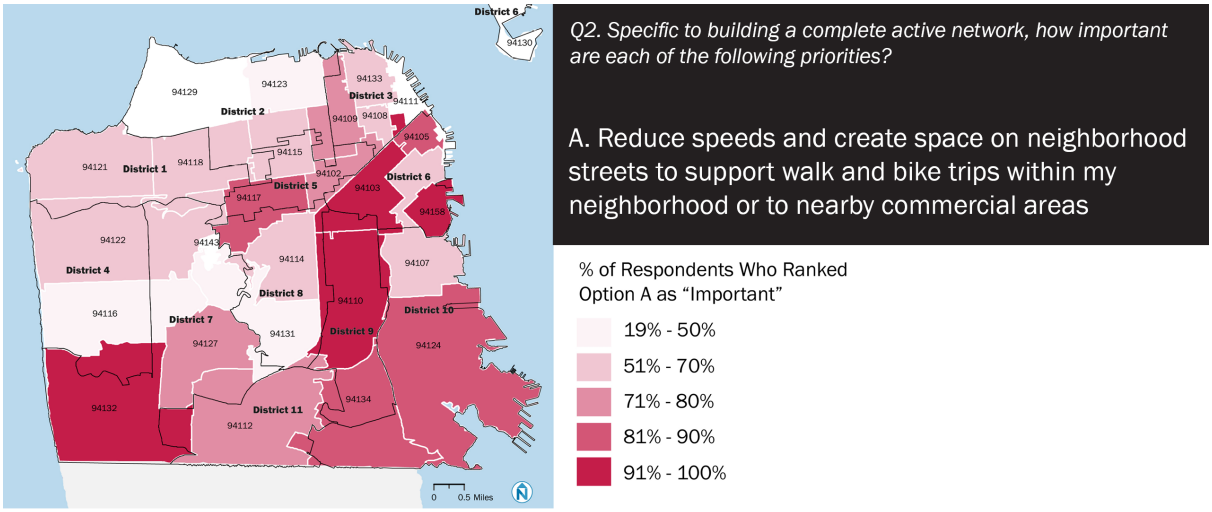
Support for making it easier to walk or bike to transit was higher in central areas along BART and near Caltrain stations (zip codes 94103, 94107, 94158, 94102, 94117, and 94112). Support was more moderate in zip code 94110, despite close proximity to BART.

Support was mixed along Muni Metro lines in all parts of the city. In some zip codes (such as 94132, 94127, 94117, and 94124), support was 70% or higher. In others, support was moderate (94122, and 94114) or low (94116, and 94131). Compared with support for Options A and B, support for Option C was relatively lower in the Mission (94110) and Lower Pacific Heights (94115).

Table 3: Importance of Options A, B, and C by Zip Code

ZIP CODE	TOTAL RESPONSES	A IS IMPORTANT	B IS IMPORTANT	C IS IMPORTANT
94103	97	89	80	89
94114	34	20	22	21
94112	33	24	23	26
94124	33	27	23	22
94117	29	25	27	26
94110	28	26	27	20
94102	27	21	21	24
94109	24	18	16	20
94107	23	15	18	21
94116	21	4	6	5
94121	20	13	13	13
94134	20	18	14	14
94122	17	11	8	11
94133	13	8	7	5
94118	12	7	7	6
94115	10	7	9	5
94105	8	7	6	6
94127	8	6	6	6
94131	8	4	4	4
94123	6	3	3	4
94104	5	5	5	5
94108	5	3	1	3
94132	3	3	1	3
94014	2	2	2	2
94158	2	2	2	2
94609	2	1	2	2
94010	1	1	1	1
94015	1	1	1	1
94066	1	1	1	1
94402	1	1	1	1
94519	1	1	1	1
94523	1	1	0	1
94530	1	1	1	1
94611	1	1	1	1
94612	1	1	1	1
94618	1	1	1	1
94703	1	0	1	1

Figure 5: Question 2 Responses by Zip Code (Options A, B, and C Alone)

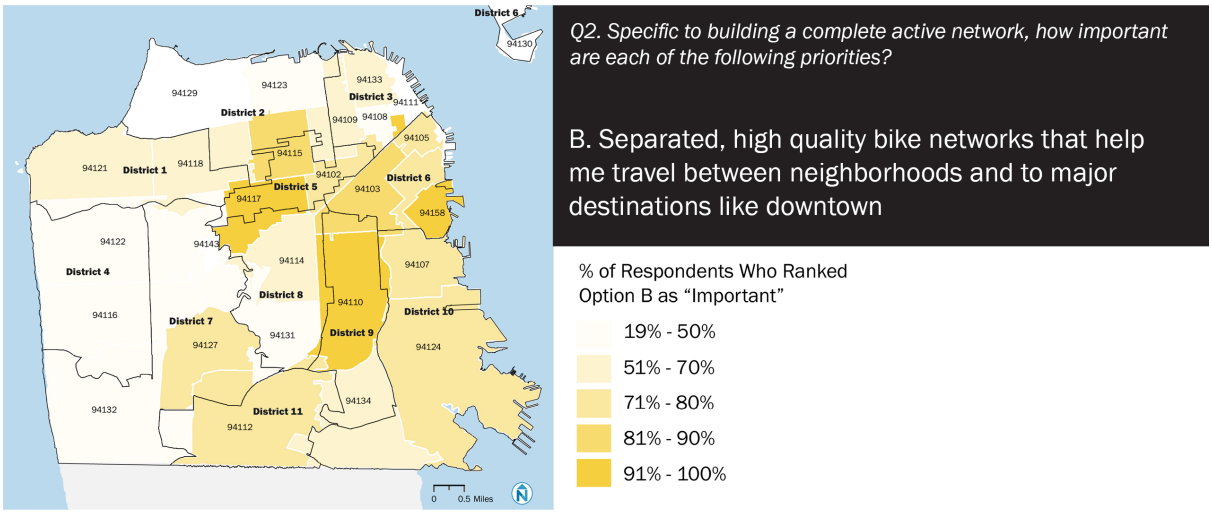


Q2. Specific to building a complete active network, how important are each of the following priorities?

A. Reduce speeds and create space on neighborhood streets to support walk and bike trips within my neighborhood or to nearby commercial areas

% of Respondents Who Ranked Option A as "Important"

- 19% - 50%
- 51% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%

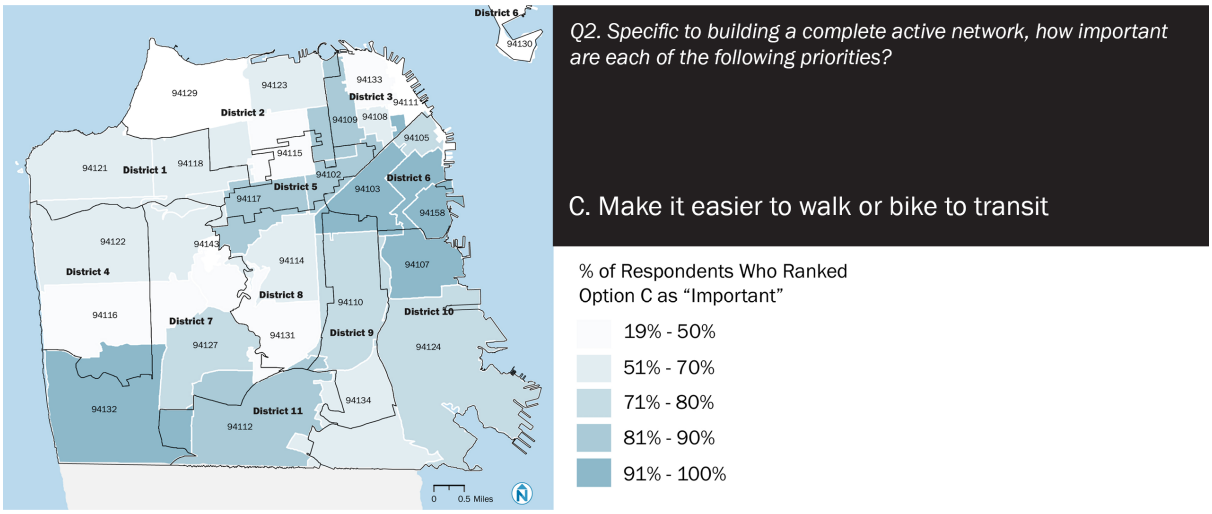


Q2. Specific to building a complete active network, how important are each of the following priorities?

B. Separated, high quality bike networks that help me travel between neighborhoods and to major destinations like downtown

% of Respondents Who Ranked Option B as "Important"

- 19% - 50%
- 51% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%



Q2. Specific to building a complete active network, how important are each of the following priorities?

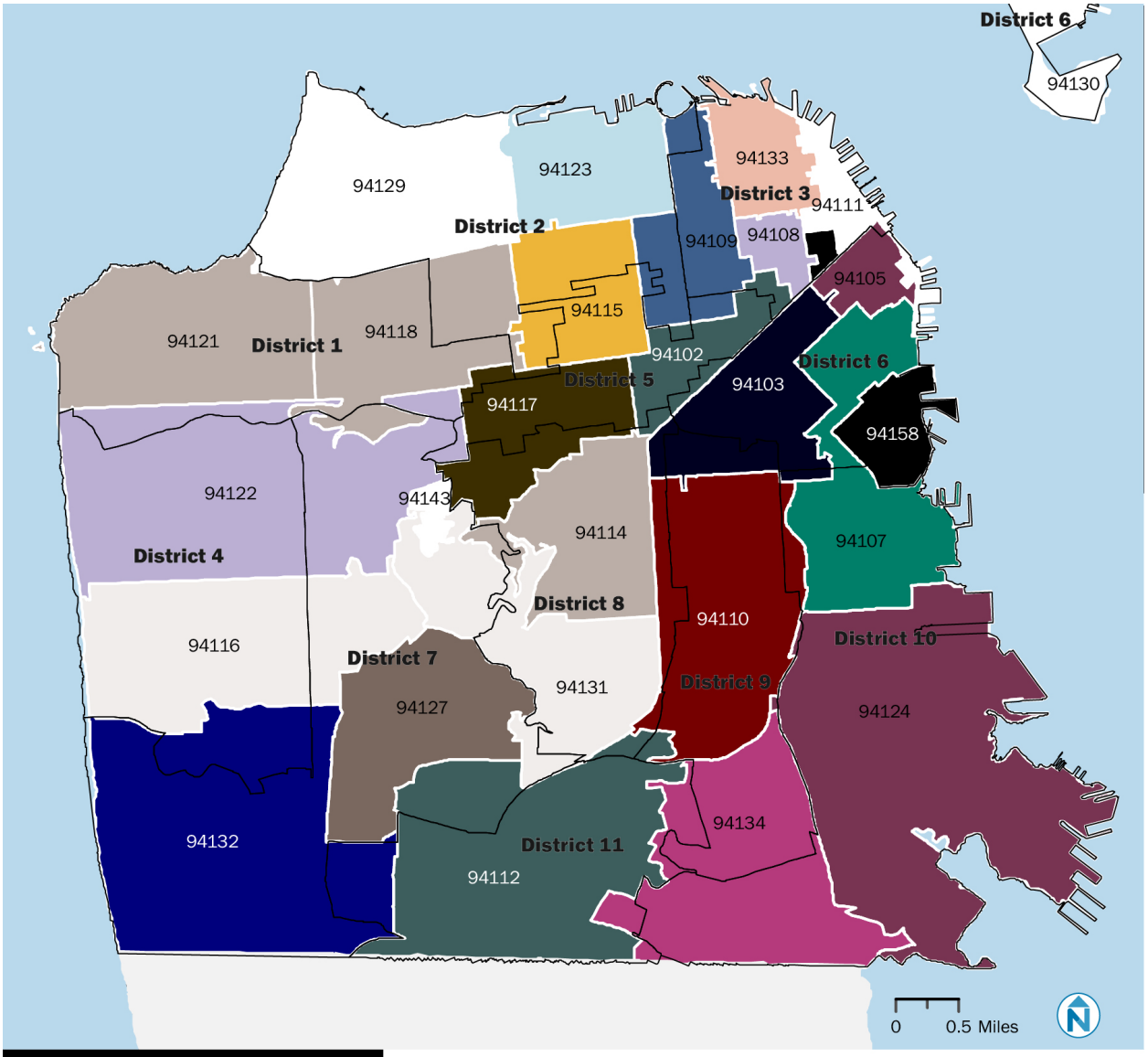
C. Make it easier to walk or bike to transit

% of Respondents Who Ranked Option C as "Important"

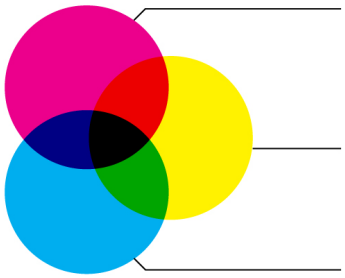
- 19% - 50%
- 51% - 70%
- 71% - 80%
- 81% - 90%
- 91% - 100%

Out of 657 total survey responses received, 501 provided a home zip code

Figure 6: Question 2 Responses by Zip Code (Options A, B, and C Combined)



Q2. Specific to building a complete active network, how important are each of the following priorities?



% of Respondents who ranked option A as first choice
Lighter color = fewer respondents

% of Respondents who ranked option B as first choice
Lighter color = fewer respondents

% of Respondents who ranked option C as first choice
Lighter color = fewer respondents

Out of 657 total survey responses received, 501 provided a home zip code.

Overview of Findings from Survey Question 3

Question Text: What are the top strategies that we should pursue to make our streets safe for everyone?

Response Options: (select as many options as desired)

- ☐ Reduce speed limits
- ☐ Dedicate more space on our roads for people to walk and bike
- ☐ Improve safety at on- and off-ramps
- ☐ Advocate for authority to use speed safety cameras
- ☐ Install traffic calming (e.g., sidewalk extensions, improved visibility at intersections)
- ☐ Operate programs to improve safety (e.g., safe routes to schools)
- ☐ Other. Are there additional safety strategies we should consider?

TRENDS AND OBSERVATIONS

Support for all response options was similar. Responses by zip code are shown in Table 4. Installing traffic calming (option 5) accounted for the highest proportion of all responses submitted (22%); programs to improve safety (Option 6) accounted for the lowest proportion of all responses submitted (9%). Most respondents selected 2 or more strategies, and respondents selected an average of 2.8 strategies per response.

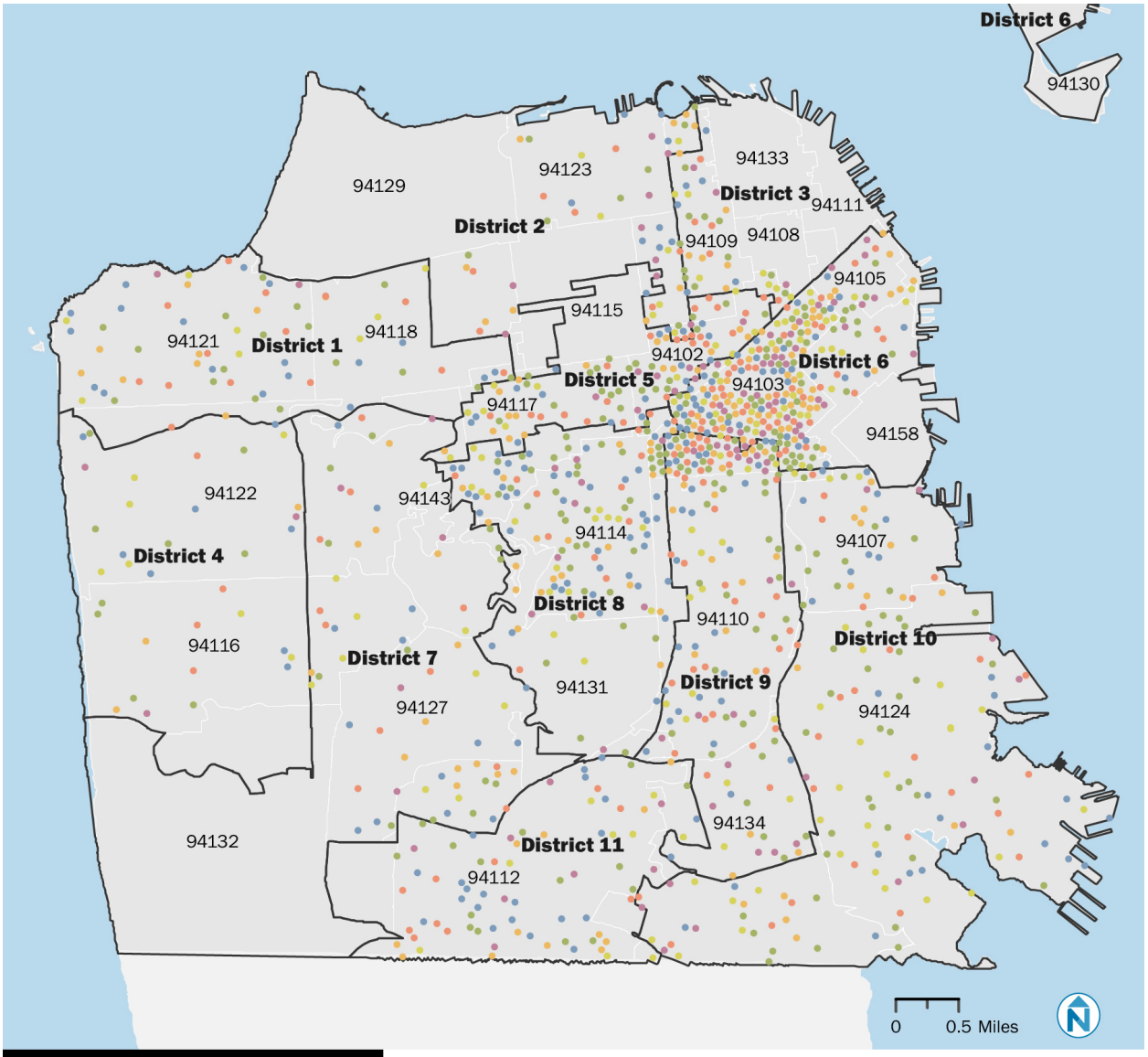
The geographic distribution of responses is shown in Figure 7. Support for all options was generally evenly balanced in responses from most neighborhoods and districts. Traffic calming had the highest proportion of support in zip code 94124. Safety programs had the highest proportion of support in zip code 94116.

122 write-in responses were submitted as additional safety strategies to consider. Write in responses addressed a wide range of ideas and strategies. Many emphasized shared responsibility for road safety amongst all modes. Some respondents suggested there were opportunities to better achieve road safety goals if existing regulations were more effectively enforced or if road users were better educated about road safety.

Table 4: Strategy Support and Response Rate by Zip Code

ZIP CODE	TOTAL RESPONSES	REDUCE SPEED LIMITS	DEDICATE MORE SPACE ON OUR ROADS FOR PEOPLE TO WALK AND BIKE	IMPROVE SAFETY AT ON- AND OFF-RAMPS	ADVOCATE FOR AUTHORITY TO USE SPEED SAFETY CAMERAS	INSTALL TRAFFIC CALMING	OPERATE PROGRAMS TO IMPROVE SAFETY	OTHER
94103	97	50	46	32	53	58	36	4
94114	34	8	22	10	11	22	7	11
94112	33	13	24	9	17	20	11	1
94124	33	17	14	20	4	27	6	3
94117	29	11	22	9	11	24	1	5
94110	28	17	21	8	11	20	4	2
94102	27	14	12	12	8	15	11	4
94109	24	9	13	7	11	13	6	6
94107	23	9	13	6	11	16	4	7
94116	21	5	5	6	3	5	1	14
94121	20	9	13	5	7	11	2	6
94134	20	9	7	12	7	14	9	1
94122	17	4	7	7	6	8	4	6
94133	13	0	8	5	5	8	5	3
94118	12	6	4	3	4	5	2	6
94115	10	2	6	4	7	7	0	2
94105	8	2	2	2	5	3	6	2
94127	8	3	6	2	3	2	1	5
94131	8	2	2	3	2	4	1	4
94123	6	3	2	2	1	4	2	2
94108	5	2	3	3	2	3	2	0
94104	5	0	3	0	5	5	2	0
94132	3	0	1	1	1	2	1	1
94014	2	1	2	0	1	1	1	0
94158	2	1	1	0	1	1	0	2
94609	2	0	2	1	0	2	0	0
94010	1	0	1	0	1	1	0	0
94015	1	1	0	1	0	1	0	0
94066	1	0	1	0	1	1	0	0
94402	1	1	1	0	0	1	0	0
94519	1	0	0	1	0	1	1	0
94523	1	1	0	1	1	0	0	0
94530	1	1	1	0	0	0	0	1
94611	1	1	1	0	1	0	0	0
94612	1	1	1	0	0	1	0	0
94618	1	0	1	1	0	1	0	0
94703	1	0	1	0	0	1	0	1
Other*	162	69	70	54	51	88	51	14

Figure 7: Question 3 Responses by Zip Code



Q3. What are the top strategies that we should pursue to make our streets safe for everyone?

- Complete streets: Dedicate more space on roads for people to walk and bike
- Install traffic calming
- Freeway ramp safety: Improve safety at on- and off-ramps
- Speed safety cameras: Advocate for authority to use speed safety cameras
- Reduce speed limits
- Safety programs: Operate programs to improve safety

Out of 657 total survey responses received, 501 provided a home zip code.
113 respondents submitted a write-in response indicating support for other strategies

Conclusion

Preferences for different types of road safety improvements and strategies vary geographically. Some strategies, such as providing rewards and discounts for transit, carpooling, and bike purchases, received more consistent support across all neighborhoods. Others, such as expanding bike and scooter share services, received more variable levels of support from neighborhood to neighborhood.

Understanding where different types of road safety improvements align with local preferences can be helpful when developing safety interventions and will require additional targeted, neighborhood-level outreach and collaboration with local residents. Learnings from these outreach efforts can inform future transportation funding decisions to help align safety strategies with ConnectSF goals and community transportation needs. In addition to future community engagement to better understand road safety priorities, there may be opportunities to incorporate learnings from this survey into future Vision Zero planning and strategy implementation efforts.